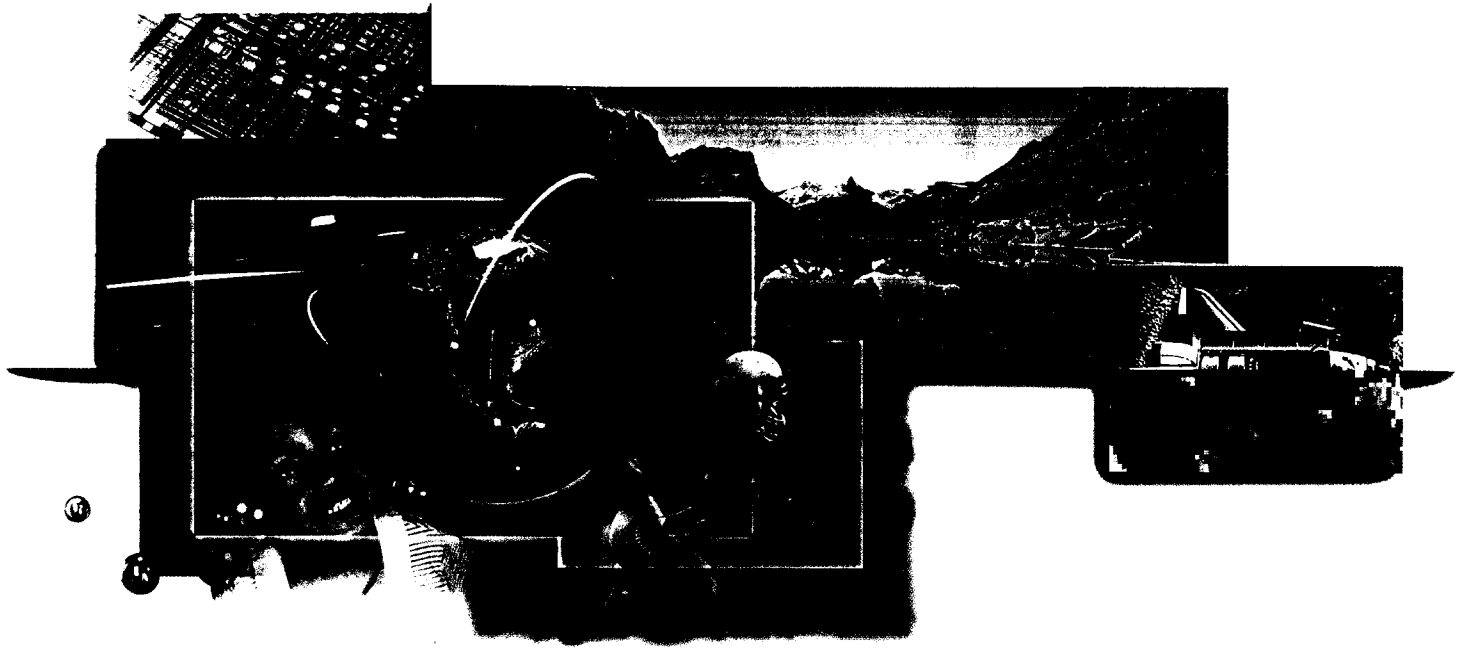




# Digital High Definition TV

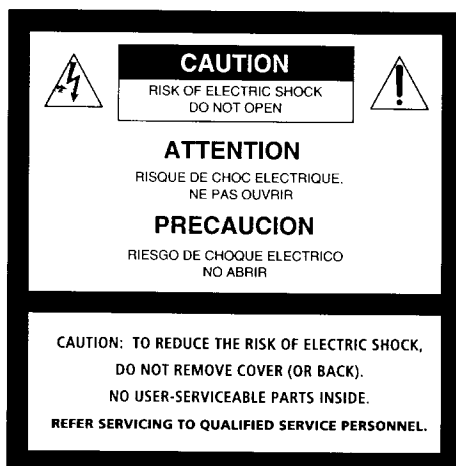
*Operating Instructions*



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## WARNING

To reduce the risk of fire or shock hazard, do not expose the TV to rain or moisture.



This symbol is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

### CAUTION

TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS POLARIZED AC PLUG WITH AN EXTENSION CORD, RECEPTACLE, OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

### CAUTION

When using TV games, computers, and similar products with your TV, keep the brightness and contrast functions at low settings. If a fixed (non-moving) pattern is left on the screen for long periods of time at a high brightness or contrast setting, the image can be permanently imprinted onto the screen. Continuously watching the same program can cause the imprint of station logos onto the TV screen. These types of imprints are not covered by your warranty because they are the result of misuse.

### Note on Caption Vision

This television receiver provides display of television closed captioning in accordance with §15.119 of the FCC rules.

### Note on Cleaning the TV

Clean the TV with a soft dry cloth. Never use strong solvents such as thinner or benzine, which might damage the finish of the cabinet.

### Note to CATV System Installer

This reminder is provided to call the CATV system installer’s attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

Use of this television receiver for other than private viewing of programs broadcast on UHF or VHF or transmitted by cable companies for the use of the general public may require authorization from the broadcaster/cable company and/or program owner.

#### NOTIFICATION

This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference with radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- ☐ Reorient or relocate the receiving antennas.
  - ☐ Increase the separation between the equipment and receiver.
  - ☐ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
  - ☐ Consult the dealer or an experienced radio/TV technician for help.
- You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

---

### Safety

- ☐ Operate the TV only on 120 V AC.
- ☐ The plug is designed, for safety purposes, to fit into the wall outlet only one way. If you are unable to insert the plug fully into the outlet, contact your dealer.
- ☐ If any liquid or solid object should fall inside the cabinet, unplug the TV immediately and have it checked by qualified service personnel before operating it further.
- ☐ If you will not be using the TV for several days, disconnect the power by pulling the plug itself. Never pull on the cord.

For details concerning safety precautions, see the supplied leaflet "IMPORTANT SAFEGUARDS".

---

### Installing

- ☐ To prevent internal heat buildup, do not block the ventilation openings.
- ☐ Do not install the TV in a hot or humid place, or in a place subject to excessive dust or mechanical vibration.



Manufactured under license from Dolby Laboratories Licensing Corporation. Dolby and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

TruSurround is a trademark of SRS Labs, Inc. SRS and the SRS symbol are registered trademarks of SRS Labs, Inc. in the United States and selected foreign countries. SRS and TruSurround are incorporated under license from SRS Labs, Inc. and is protected under United States Patent Nos. 4,748,669 and 4,841,572 with numerous additional issued and pending foreign patents. Purchase of this product does not convey the right to sell recordings made with the TruSurround technology.

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## *Using the DTV Menus*

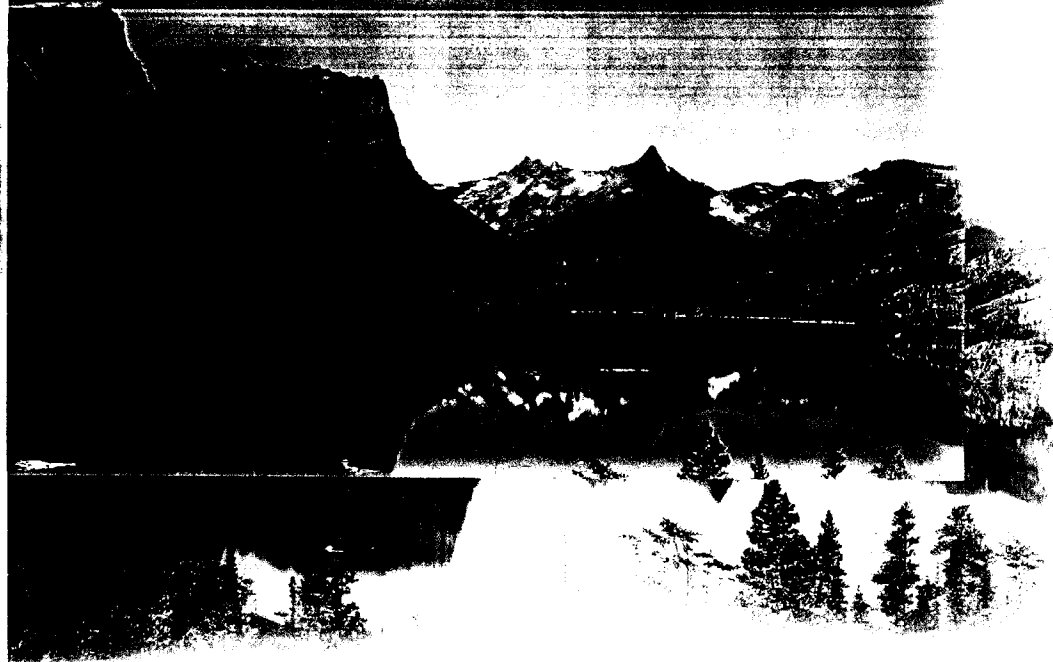
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# *Introducing the DTV System*

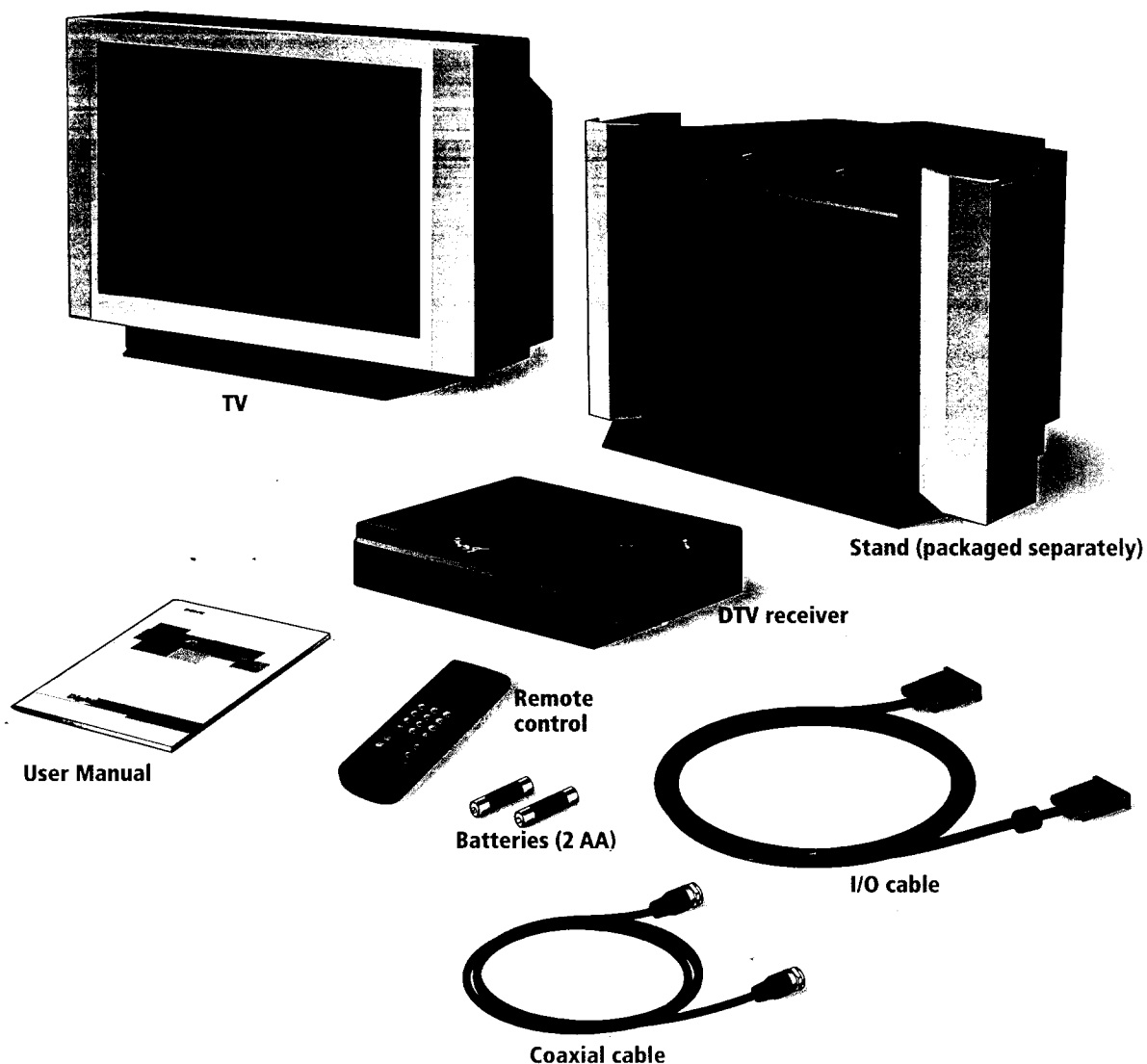


## Overview

This chapter defines the contents of your DTV system, and provides an overview of how to set up and use basic features of your digital TV.

## Unpacking Your System

Your system includes the following:





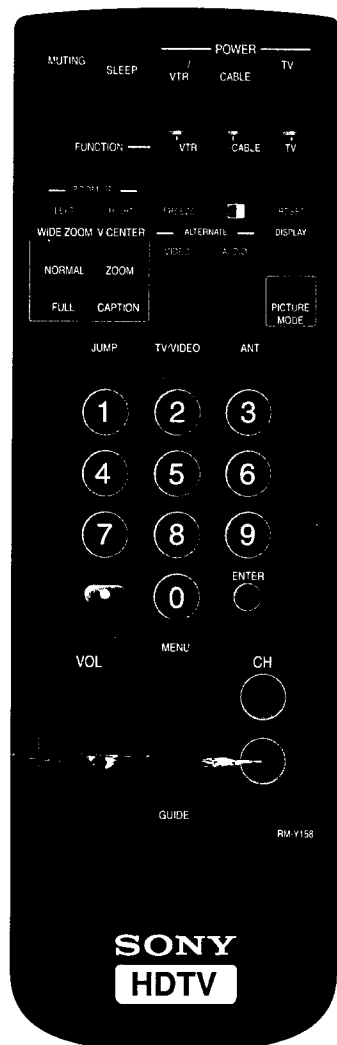
## Setting Up Overview

Here is an overview of the steps required to set up your DTV system. Detailed illustrations are included on the pages shown below.

To		See Page(s)
1	Place the TV and DTV receiver on the stand.	17
2	Connect an antenna to the DTV receiver's FROM ANTENNA jack. Connect the I/O cable to the DTV receiver's I/O jack. Then route the cable through the stand and connect it to the TV's I/O jack.	19 to 21
3	Connect the TV's AC cord to the DTV receiver's AC outlet.	19
4	Connect other audio and video equipment you have, such as cable boxes, VCRs, etc. Then connect the DTV receiver's AC power cord to a wall outlet.	24 to 34
5	Turn on the TV to display the Auto Setup screen, which enables you to run Auto Program. Auto Program sets up the TV to receive channels for each input source, including cable, VHF/UHF, and digital.	47

## Remote Control Overview

Here is an overview of the buttons on the remote control you will most likely use.



### TV POWER Button

Turns the TV and DTV receiver on and off.

### Picture-and-Picture (P&P) Buttons

Use these buttons to display two programs at a time (page 39).



### Wide Screen Mode Buttons

Use these four buttons to change the display of 4:3 aspect ratio pictures to Wide Screen (16:9) mode (page 38).

### ANT Button

Toggles through the available input sources: VHF/UHF (digital), and cable.

### 0-9, , and ENTER Buttons

Pressing the 0-9 buttons and then the ENTER button selects a channel number directly. Use the  button to select a subchannel. For example, to select channel 2.1, press ② +  + ① + ENTER. (See page 37 for details about subchannels.)


### MENU Button

Brings up the DTV menus (page 41).

### CH+/- Buttons

Changes the channel.

### Joystick/ Button

Move the joystick up, down, left and right to select programs in the Guide (page 37), Menu options (page 41), and to zoom in Twin View mode (page 40). Pressing the  button selects the highlighted or displayed option.

### GUIDE Button

Brings up an on-screen Guide for selecting subchannels (page 37).

## Frequently Asked Questions

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### What is digital TV (DTV)?

Digital television (or "DTV") refers to the new over-the-air television broadcast standards adopted by the Federal Communications Commission in 1996. Developed by the Advanced Television Systems Committee (ATSC), a group of manufacturing companies, these standards define the specifications for 18 digital broadcast formats.

There are six formats in the ATSC DTV standard that are described as "High Definition Television." The remaining 12 video formats are described as "Standard Definition Television."

Although the technical aspects of these standards are transparent to television viewers, the benefits are as dramatic as those experienced when digital music on compact disk was introduced — probably even more so.

Your Sony DTV is capable of receiving all 18 formats of digital TV formats, including high-definition.

---

### What are the benefits of DTV?

For the television viewer, digital TV represents one of the most significant advances in television since color television replaced black and white. Here are just a few of the benefits:

- ☐ Dramatically superior picture quality, with up to six times the picture detail of today's analog television.
- ☐ Multichannel digital sound, including Dolby® Digital sound.
- ☐ Widescreen. DTV can provide the same type of widescreen presentation as you see in movie theaters. The new screen size has a 16:9 width-to-height (or "aspect") ratio, compared with a 4:3 aspect ratio of today's conventional television. This means that digital broadcasts of movies no longer need to be "reformatted" for television.

---

### Do I need a special antenna to receive digital television?

No. Initially, digital television will arrive through a standard, over-the-air VHF/UHF antenna, which means you can receive digital broadcasts using the same terrestrial ("rooftop") antenna you currently use to receive conventional programming. However, if you currently receive your VHF/UHF programming via cable, you will need to install a VHF/UHF antenna in order to receive digital programming. Your Sony TV, however, is also equipped with connectors that will allow you to connect DTV-compatible cable boxes when they become available.

---

*Can this TV receive conventional analog broadcasts that are available today?*

Yes. This TV is designed to receive conventional analog broadcasts, cable TV, as well as all formats of digital broadcasts. Of course, you can also connect VCRs, DVD players, digital broadcast (satellite) receivers, and other audio/video components.


---

*When is digital broadcasting being introduced?*


The transition from today's analog broadcasting system to digital television will take time to complete. In the fall of 1998, some networks will begin broadcasting digital programs.

---

*How can I select digital channels?*

Digital channels are indicated by the use of a decimal or "dot" in the subchannel number (for example, "2.1"). This number appears when you press the CH +/- buttons or press the DISPLAY button. To select a subchannel directly, use the 0-9 buttons,  button, and the ENTER button.

For example, to select subchannel 2.1, press:

② +  + ① + ENTER

You can also select digital channels using an on-screen Guide. See page 37 for details.

# *Installing the DTV System*



## Overview

This chapter includes illustrated instructions for setting up the DTV receiver, TV, and stand (pages 17 to 23).

It also includes information on the following:

<b>Topic</b>	<b>Page</b>
Connecting a VHF/UHF Antenna	24
Connecting a VCR and Cable	25
Connecting a VCR and Cable Box	26
Connecting a DBS (Satellite) Receiver	27
Connecting a DBS (Satellite) Receiver with a VCR	28
Connecting an A/V Receiver with Digital Audio IN	29
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Using the CONTROL S Feature	34

## Setting Up the TV, DTV Receiver, and Stand

The DTV stand is shipped fully assembled. Follow these instructions to set up the TV and DTV receiver.

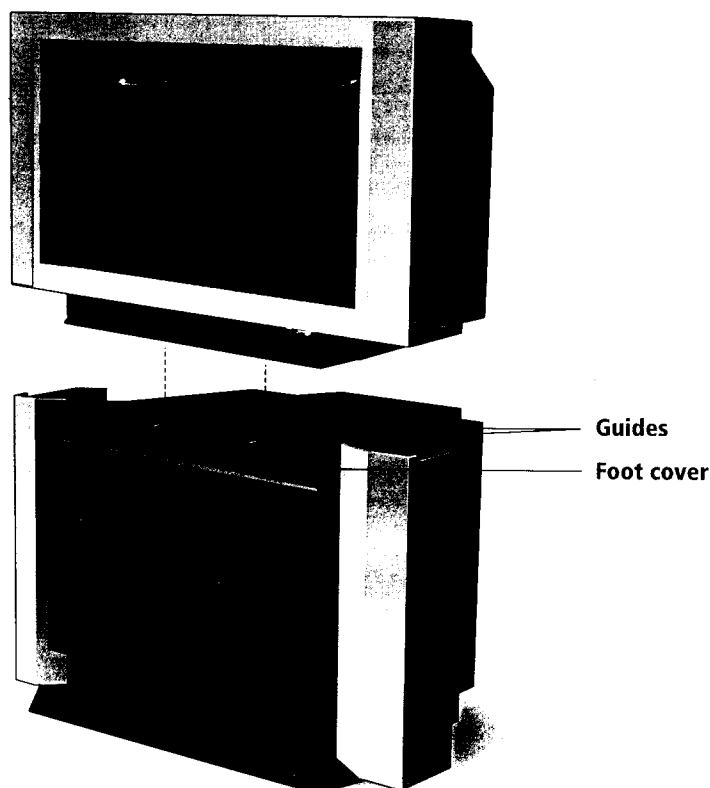
The use of the Sony stand supplied with this DTV system is recommended to ensure the safety, easy placement, proper operation, and optimal performance of this product. In the event you decide not to use the stand, Sony recommends the following guidelines:

- ☐ The DTV receiver must be placed underneath the TV while maintaining a distance of 12 inches between the top of the DTV receiver and the bottom of the TV.
- ☐ The cable must be properly routed as to avoid any damage.
- ☐ Staples or hold-down devices, which could pierce the cable, should not be used.
- ☐ Proper ventilation of the TV and receiver must be provided.
- ☐ Other electronic components should be placed at a minimum of 12 inches to avoid any interference.

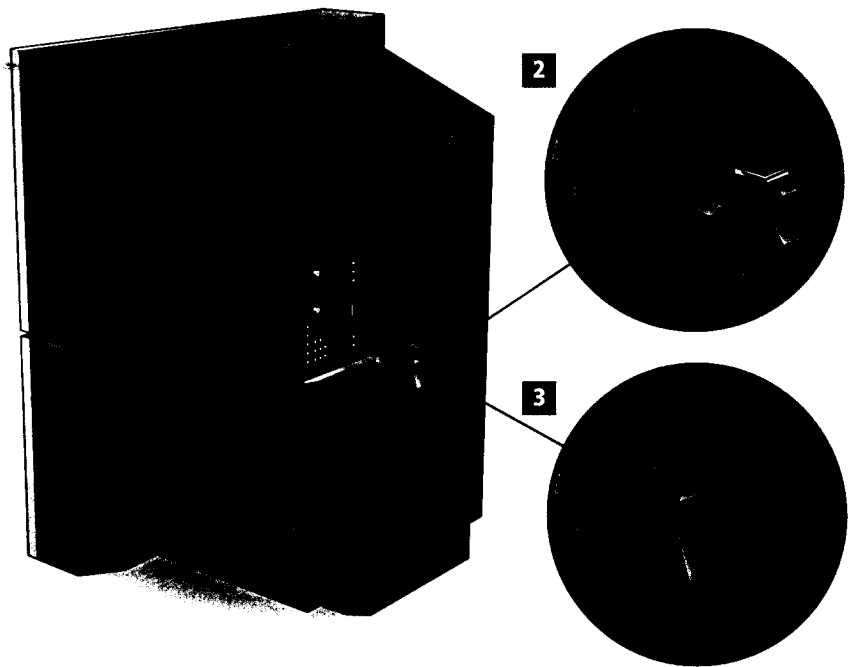
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### Place the TV on the Stand

- 1 Carefully tilt the TV forward until the bottom ledge of the TV slides under the foot cover. The TV should be flush against the foot cover on the stand.
- 2 Place the TV on the guides on the top of the stand. Make sure that the feet on the TV fit into the guides on the stand.



- 3 To secure the TV to the stand, insert the buckle into the slot in the rear of the TV.



- 4 Pull the strap down to tighten it.




---


### Connect the TV and DTV Receiver


For details on routing the cables through the stand, see page 21.

- 1 Route the coaxial cable from the antenna through the stand to the lower shelf and connect it to the DTV receiver's FROM ANTENNA jack.

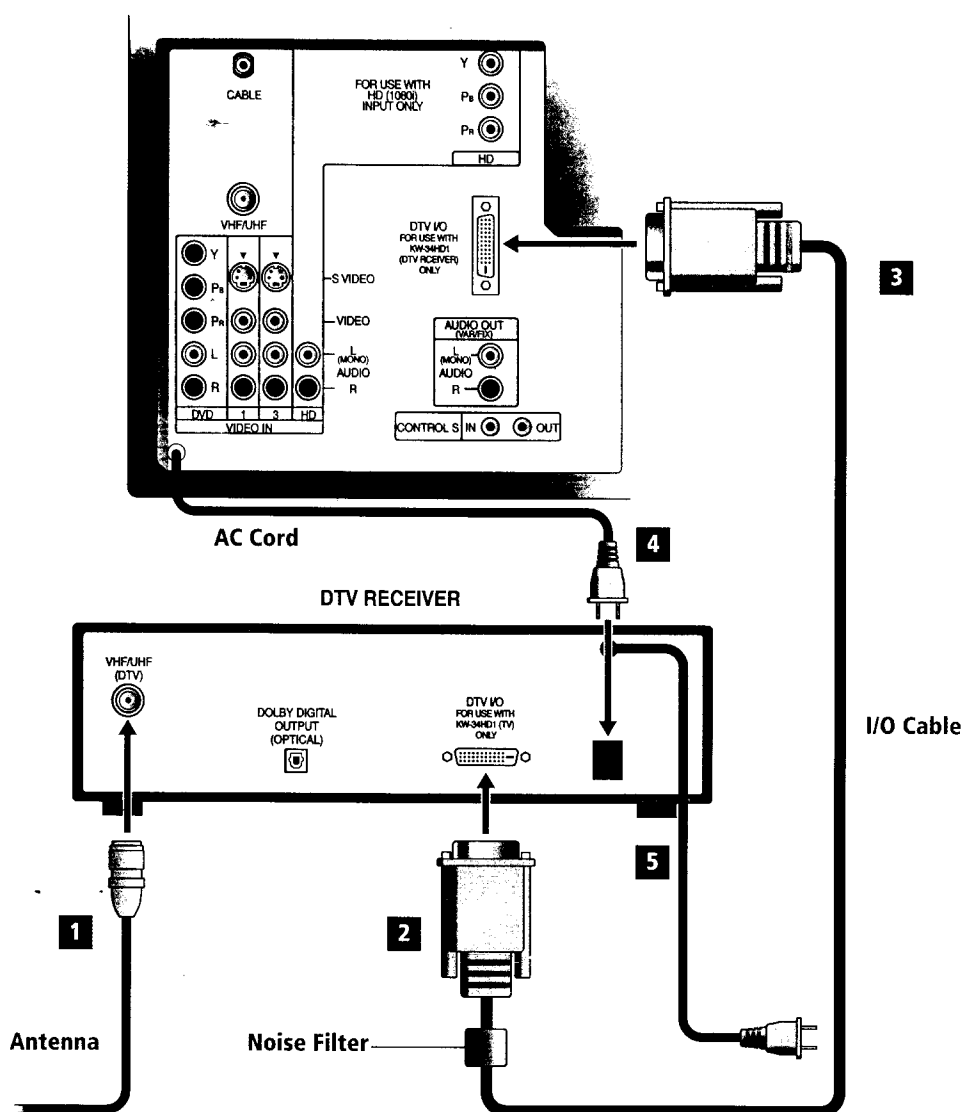
 **You cannot receive digital channels unless you connect a terrestrial antenna. This applies even if you normally receive your programming through cable or satellite.**

- 2 Connect the digital I/O cable to the DTV receiver's I/O jack.

 To ensure best picture quality, use an outdoor antenna. The use of indoor rabbit ears is not recommended.

 Before connecting the I/O cable, check that it is oriented as shown — with the noise filter closer to the DTV receiver.

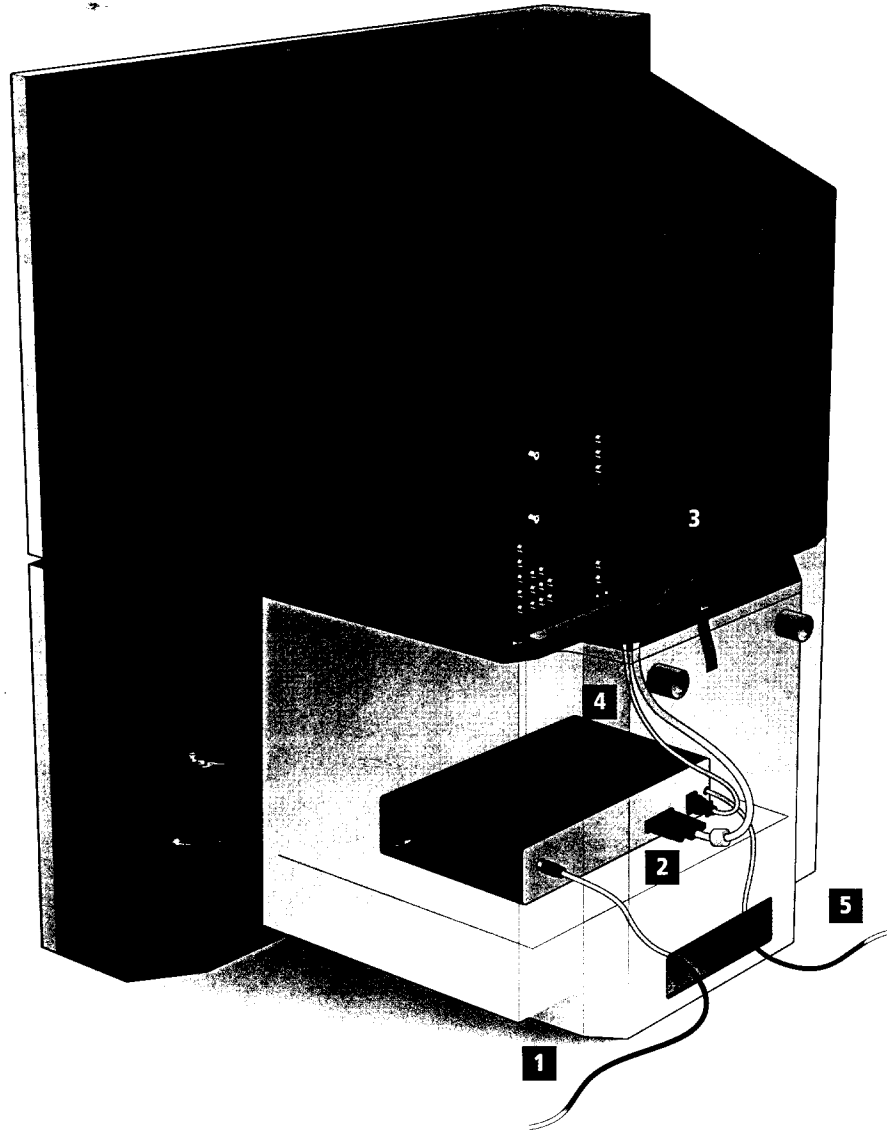
- 3 Route the other end of the digital I/O cable through the stand and connect it to the TV's DTV I/O jack.
- 4 Route the TV's AC power cord through the stand and connect it to the receiver's AC outlet.
- 5 Route the receiver's AC power cord through the stand. Connect this to an AC wall outlet only after you have finished connecting all components.



---

### *Route the Cables through the Stand*

The numbers on the following illustration correspond with the steps described in "Connect the TV and DTV Receiver" on page 19.

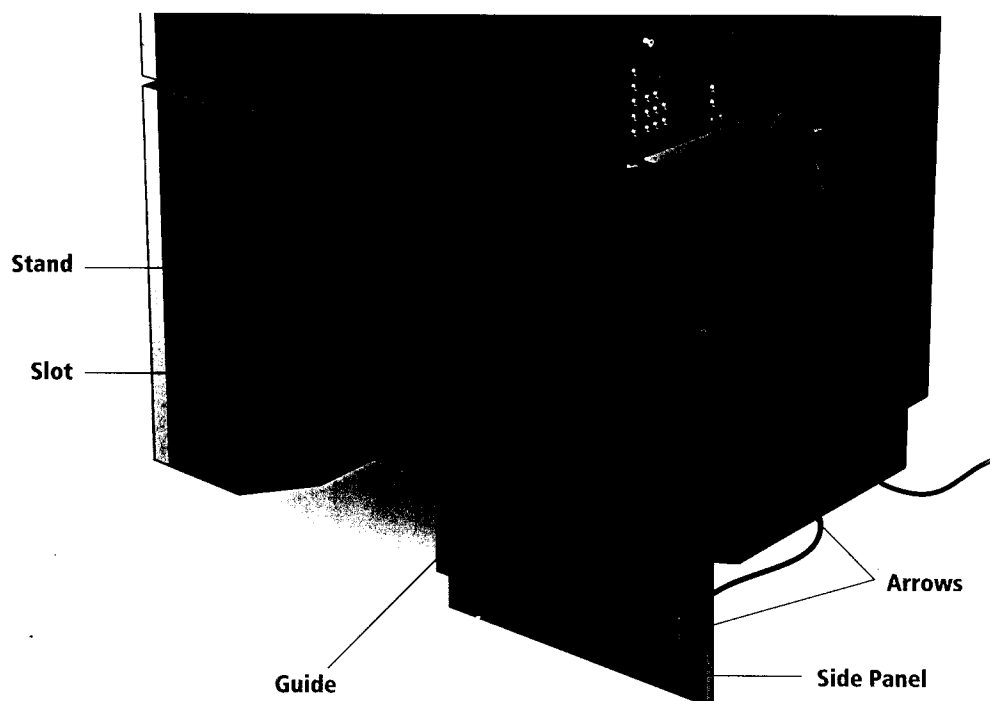


### *Install the Stand Side Panels*

After connecting the cables, attach the two side panels onto the stand.

To install the stand side panels

- 1 Insert the guide on the side panel with the slot on the stand.
- 2 Lock the panels into place by pushing the side panel in the direction of the arrow.

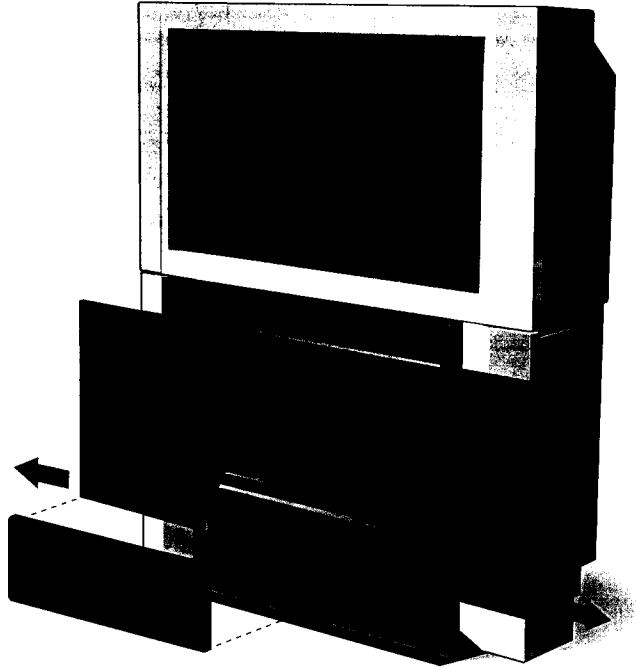


- 3 Repeat steps 1 and 2 for the other side panel.

---

### **Secure the DTV Receiver**

Place the DTV receiver on the bottom shelf of the stand, so that its feet are secured by the guides on the shelf. After you finish connecting the receiver, snap the cover to the bottom shelf into position to conceal the front panel of the receiver.



#### **Using the stand's sliding doors**

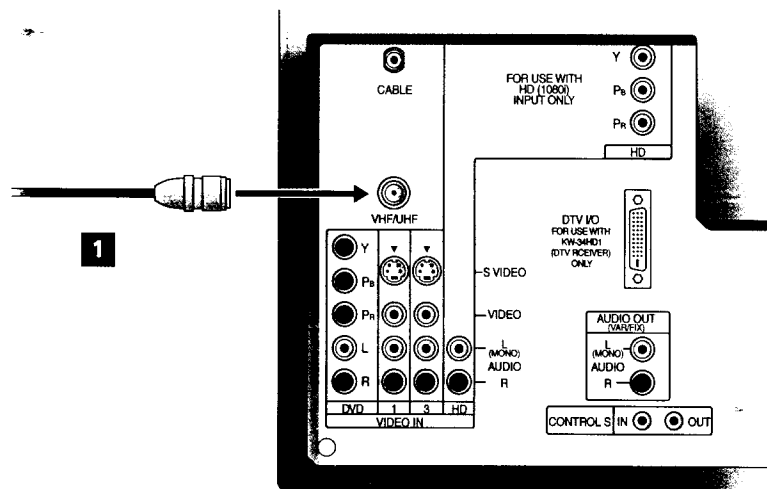
The stand has two acrylic doors with small handles that slide outward as shown.

#### **About the stand bumpers**

The back of the stand includes two rubber bumpers that guard against crimping damage to the I/O cable, which could result from placing the stand too close to the wall. To avoid potential damage to the cable, do not remove these bumpers.


## Connecting a VHF/UHF Antenna

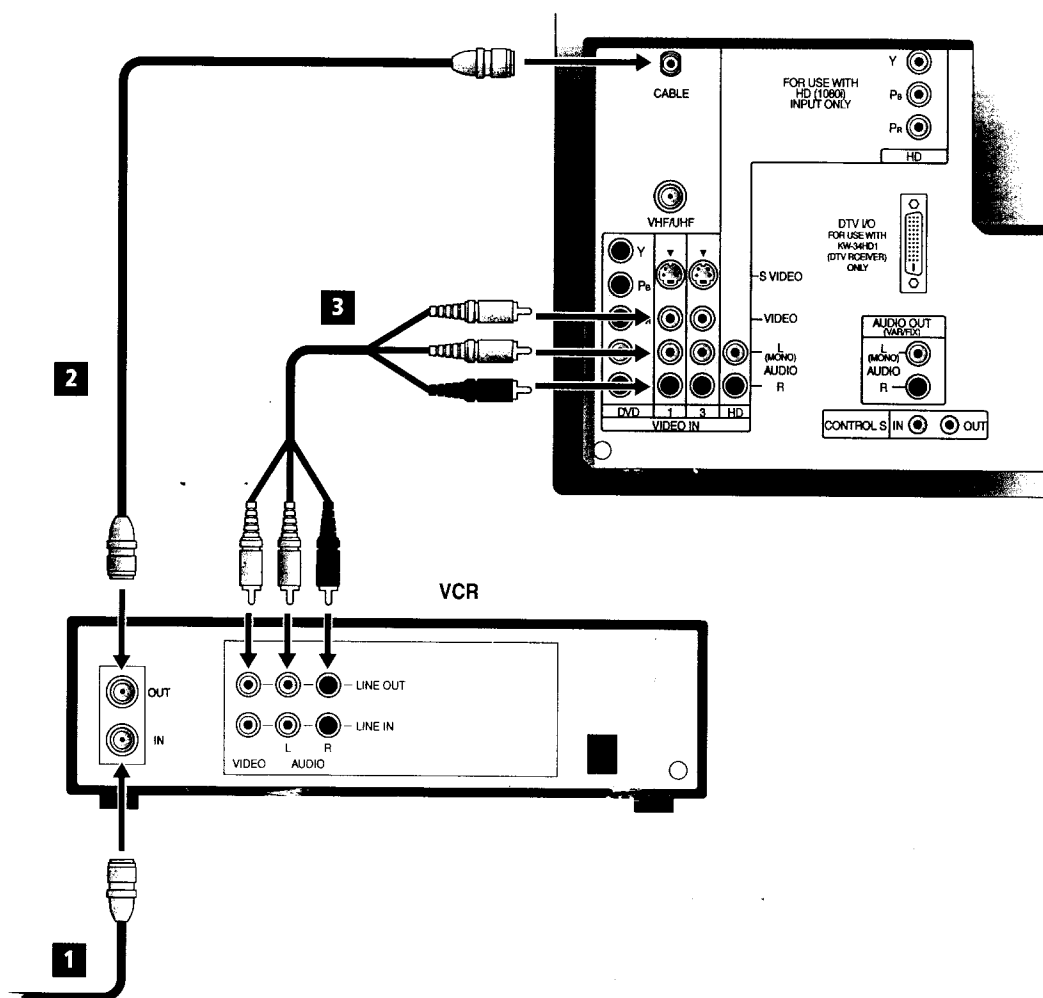
- 1 Connect the VHF/UHF antenna to the TV's VHF/UHF jack.



## Connecting a VCR and Cable


- 1 Connect the cable TV cable to the VCR's IN jack.
- 2 Using a coaxial cable, connect the VCR's OUT jack to the TV's CABLE jack.
- 3 Using an A/V cable, connect the VCR's A/V OUT jacks to the TV's A/V IN jacks.

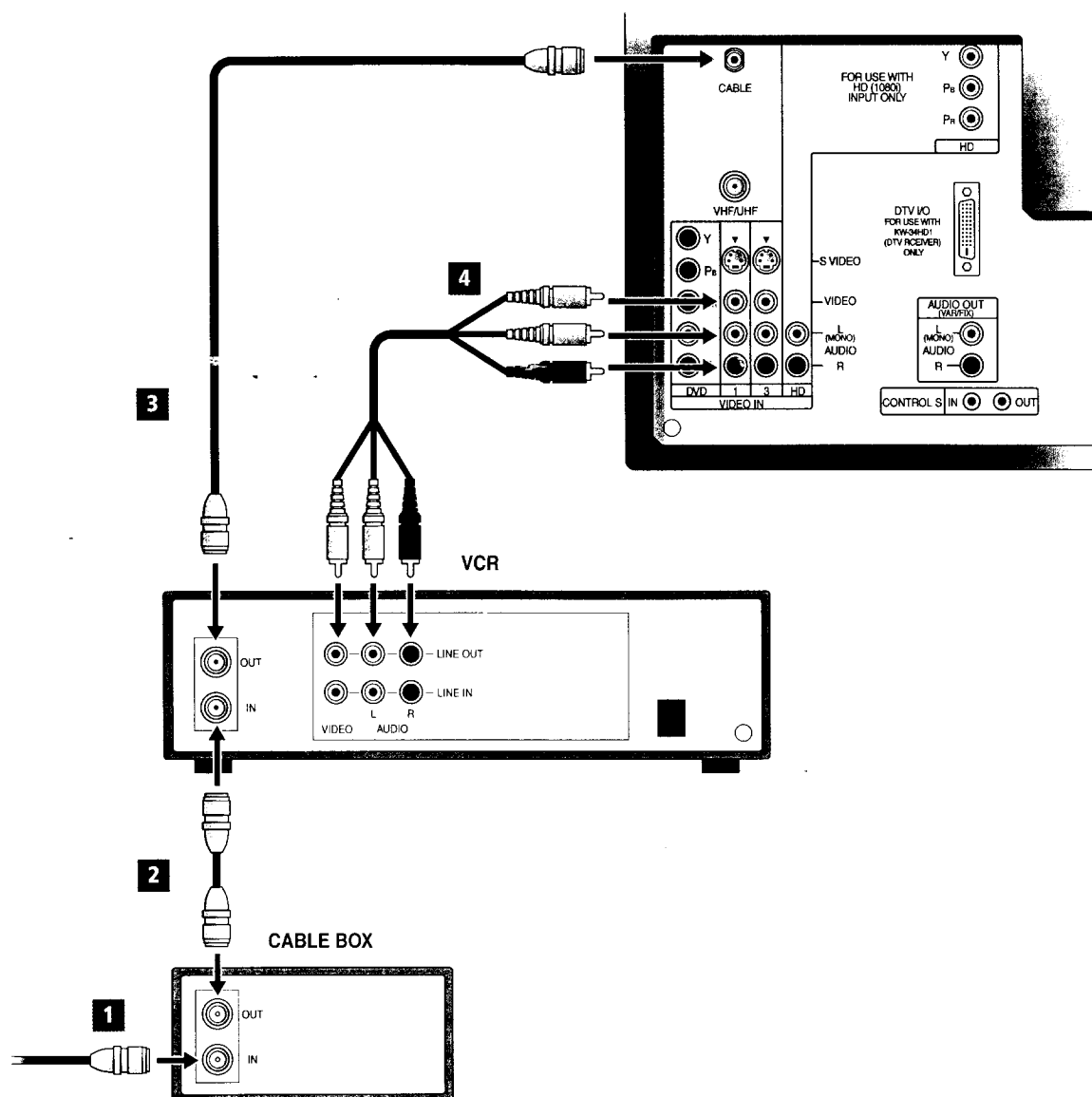
 If your VCR has an S VIDEO jack: For improved picture quality, use an S VIDEO connection instead of the yellow video cable on your combined A/V cable. Using an S VIDEO cable, connect the VCR's S VIDEO OUT jack to the TV's S VIDEO IN jack. S VIDEO does not provide audio, so audio cables must still be connected to provide sound.



## Connecting a VCR and Cable Box

- 1 Connect the cable TV antenna to the cable box's IN jack.
- 2 Using a coaxial cable, connect the cable box's OUT jack to the VCR's IN jack.
- 3 Using a coaxial cable, connect the VCR's OUT jack to the TV's CABLE jack.
- 4 Using an A/V cable, connect the VCR's A/V OUT jacks to the TV's A/V IN jacks.


 If your VCR has an S VIDEO jack: For improved picture quality, use an S VIDEO connection instead of the yellow video cable on your combined A/V cable. Using an S VIDEO cable, connect the VCR's S VIDEO OUT jack to the TV's S VIDEO IN jack. S VIDEO does not provide audio, so audio cables must still be connected to provide sound.

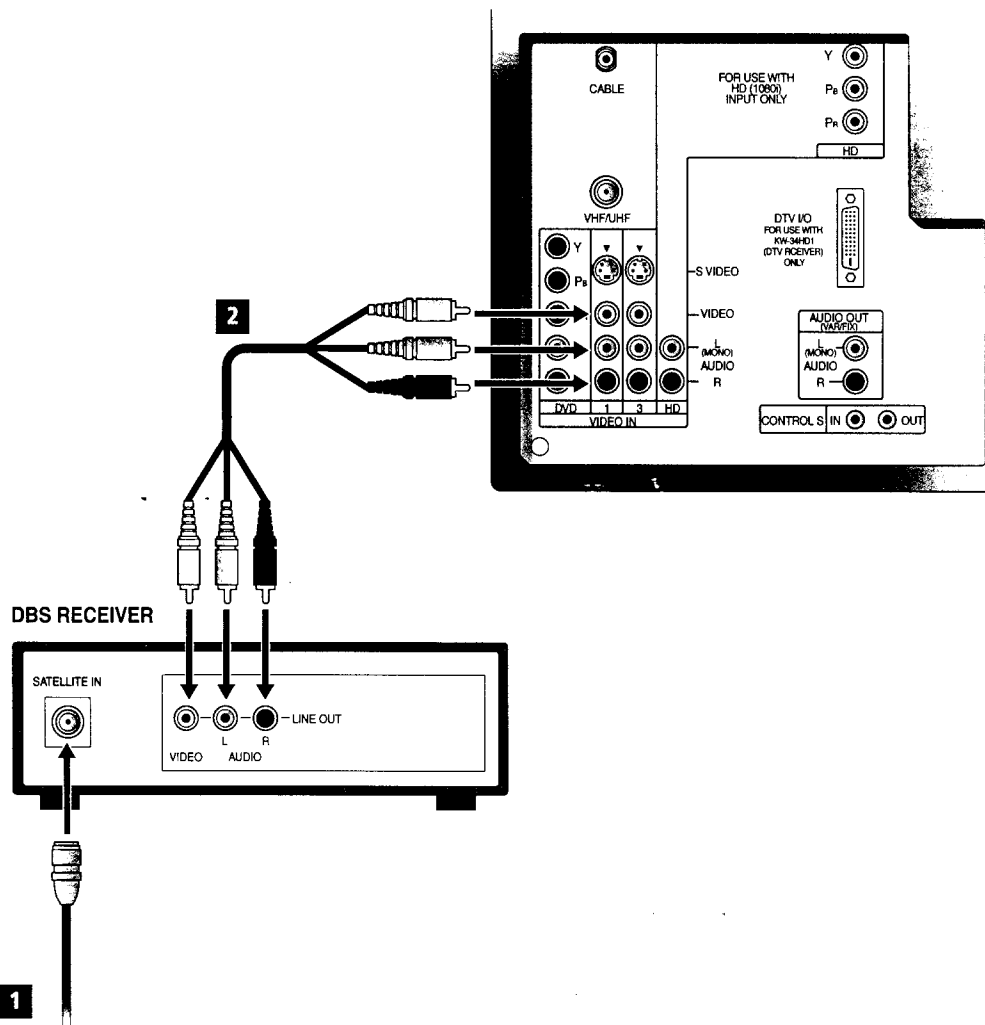




## Connecting a DBS (Satellite) Receiver

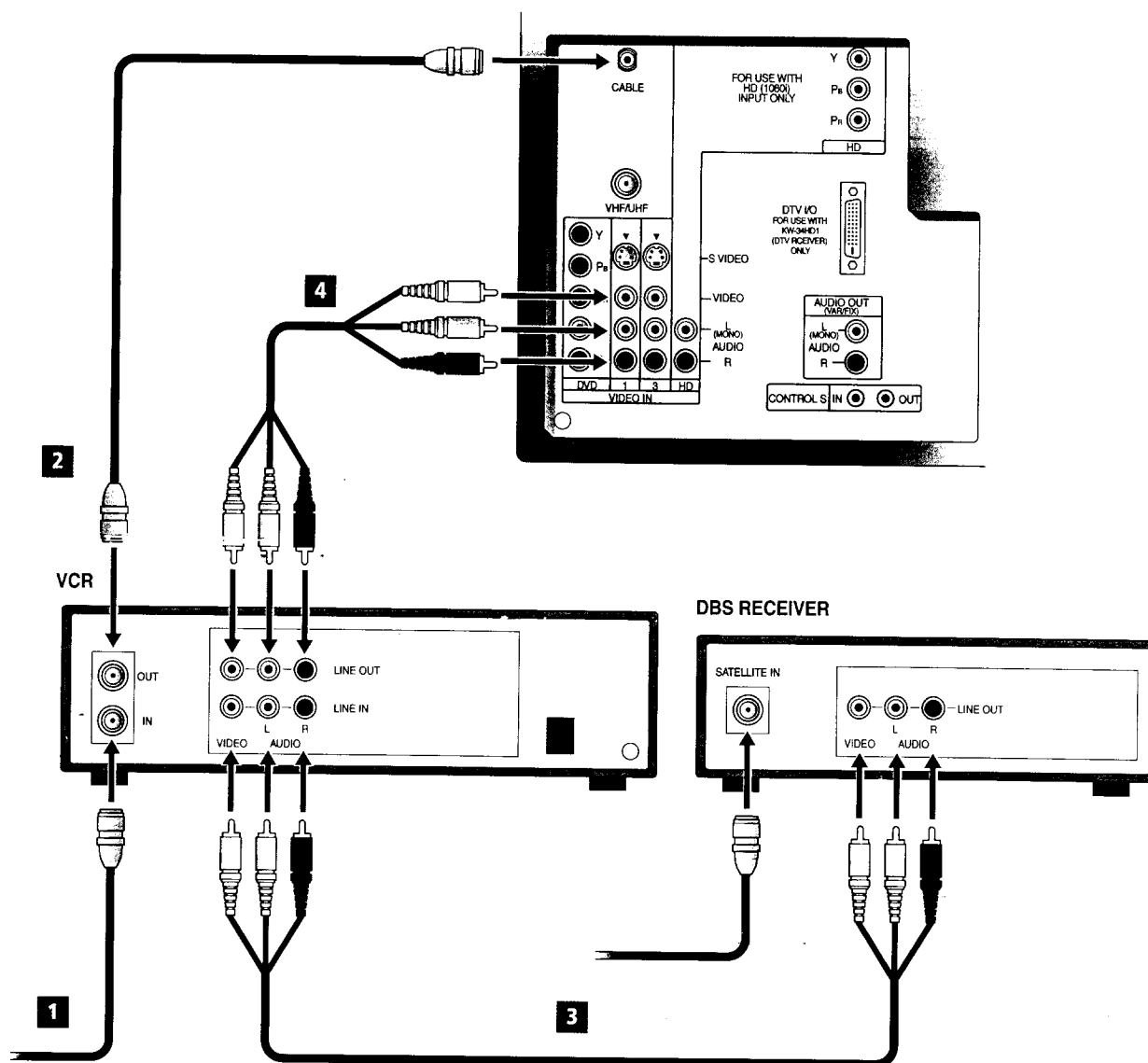
- 1 Connect the satellite antenna cable to the DBS receiver's SATELLITE IN jack.
- 2 Using an A/V cable, connect the DBS receiver's A/V OUT jacks to the TV's A/V IN jacks.

 If your DBS Receiver has an S VIDEO jack: For improved picture quality, use an S VIDEO connection instead of the yellow video cable on your combined A/V cable. Using an S VIDEO cable, connect the DBS receiver's VIDEO OUT jack to the TV's S VIDEO IN jack. S VIDEO does not provide audio, so audio cables must still be connected to provide sound.



## Connecting a DBS (Satellite) Receiver with a VCR

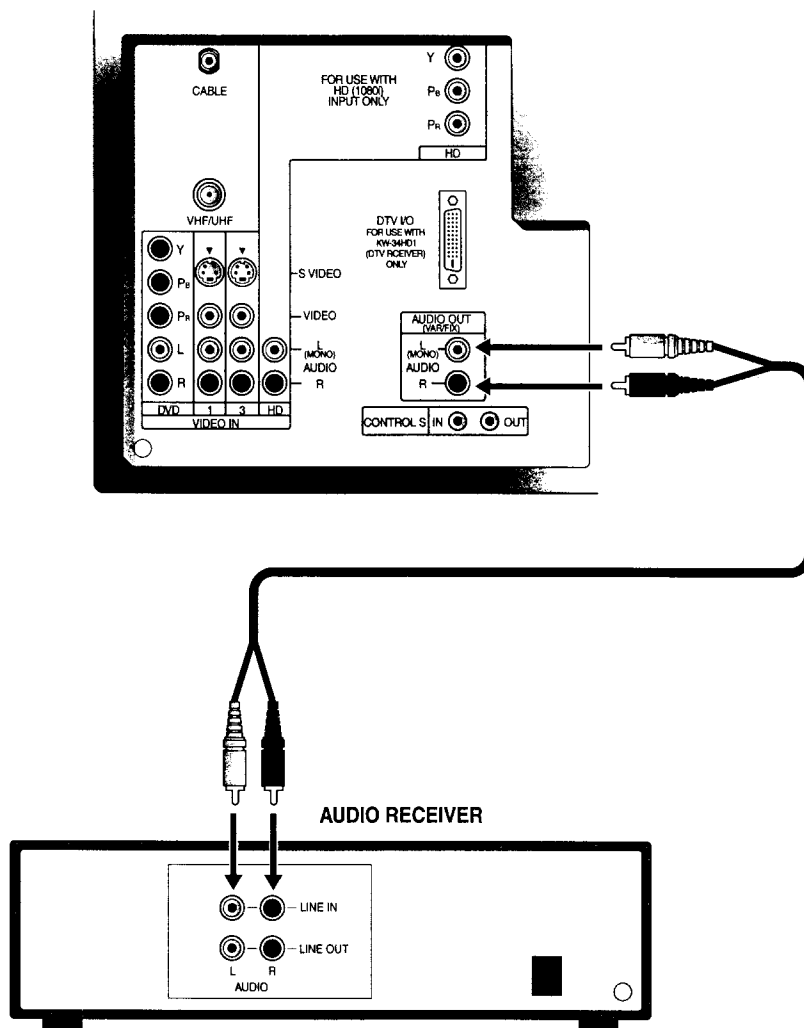
- 1 Connect the cable TV cable to the VCR's IN jack.
- 2 Using a coaxial cable, connect the VCR's OUT jack to the TV's CABLE jack.
- 3 Using an A/V cable, connect the DBS receiver's A/V OUT jacks to the VCR's A/V IN jacks.
- 4 Using an A/V cable, connect the VCR's A/V OUT jacks to the TV's A/V IN jacks.






## Connecting an Audio Receiver without Digital Audio In

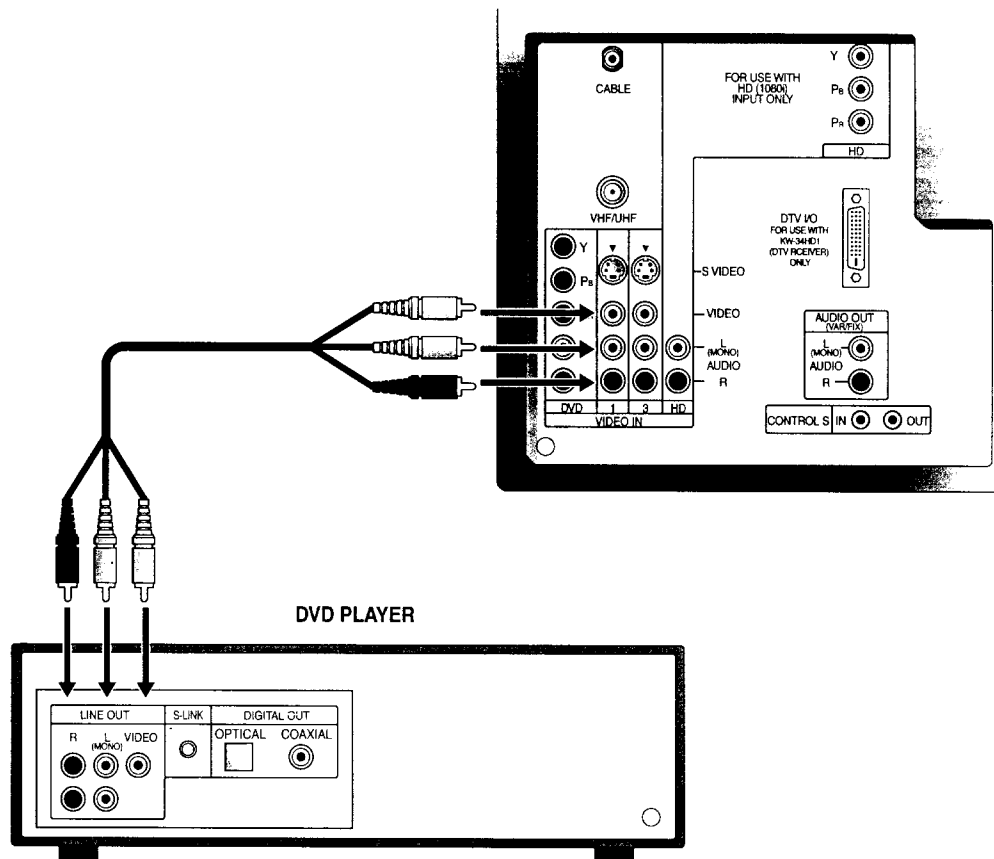
- 1 Using audio cables, connect the TV's AUDIO OUT jacks to the audio receiver's audio IN jacks.



## Connecting a DVD Player with A/V Connectors

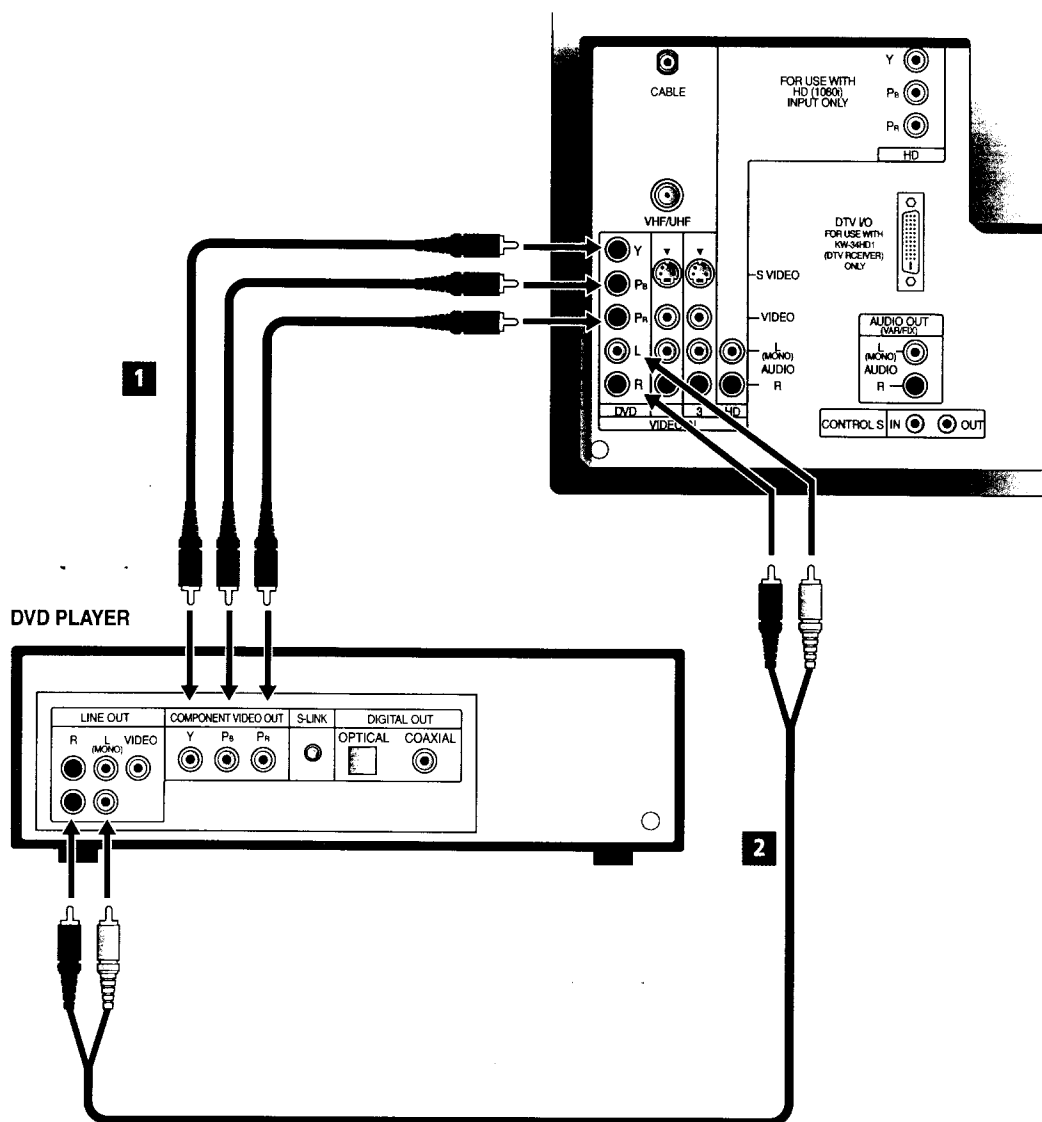
- 1 Using A/V cables, connect the DVD player's A/V OUT jacks to the TV's A/V IN jacks.

 If you experience picture noise with this connection, use the jacks labeled DVD on the rear of your TV.




## Connecting a DVD Player with Component Video Output Connectors

- 1 Using three separate component video cables, connect the DVD player's Y, Pb, and Pr jacks to the Y, Pb, and Pr jacks on the TV.
- 2 Using an audio cable, connect the DVD player's audio OUT jacks to the TV's audio IN jacks.

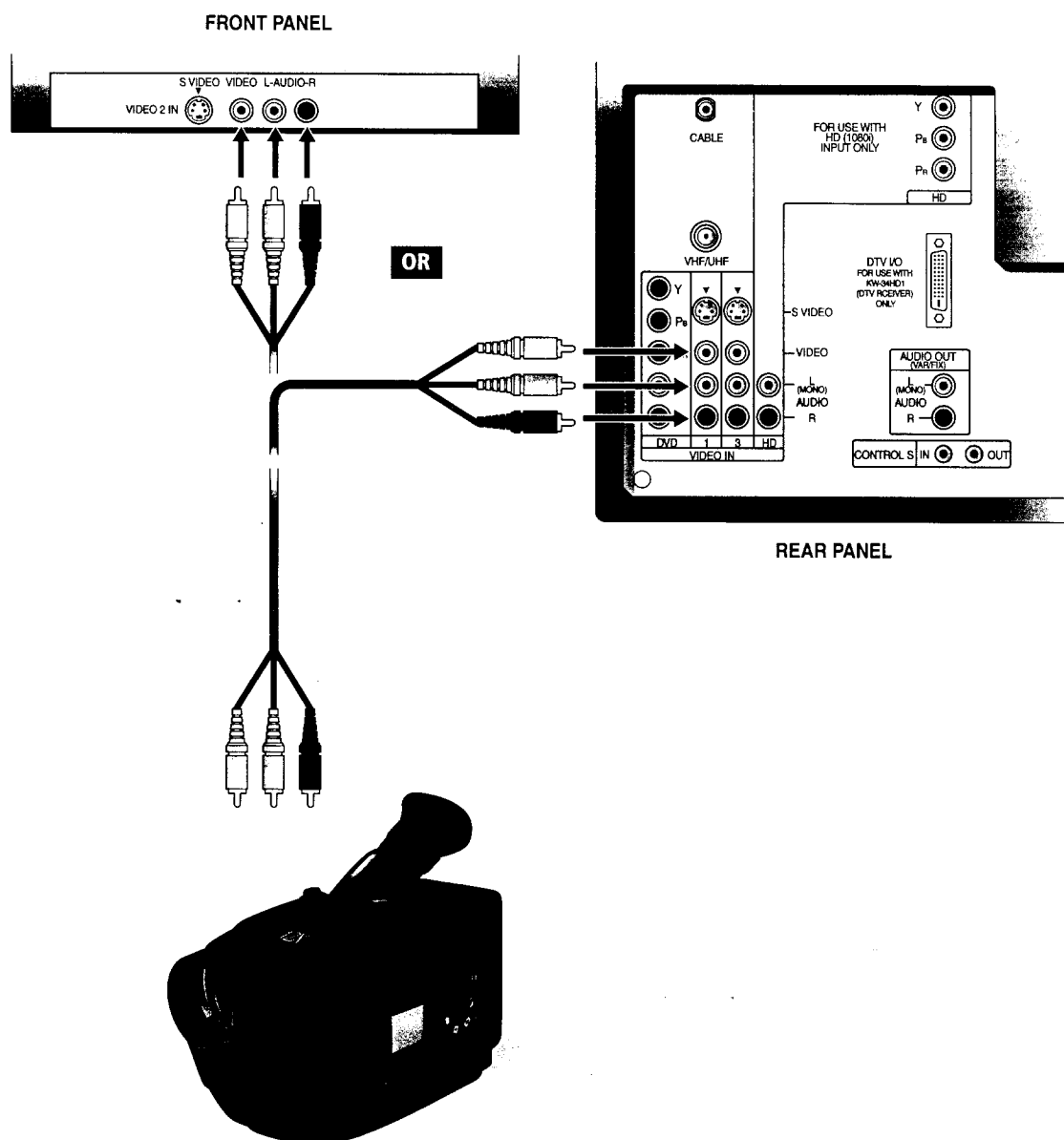


## Connecting a Camcorder

- 1 Using A/V cables, connect the camcorder's A/V OUT jacks to the TV's A/V IN jacks.

 If you have a mono camcorder, connect its left audio output to the TV's AUDIO L jack.

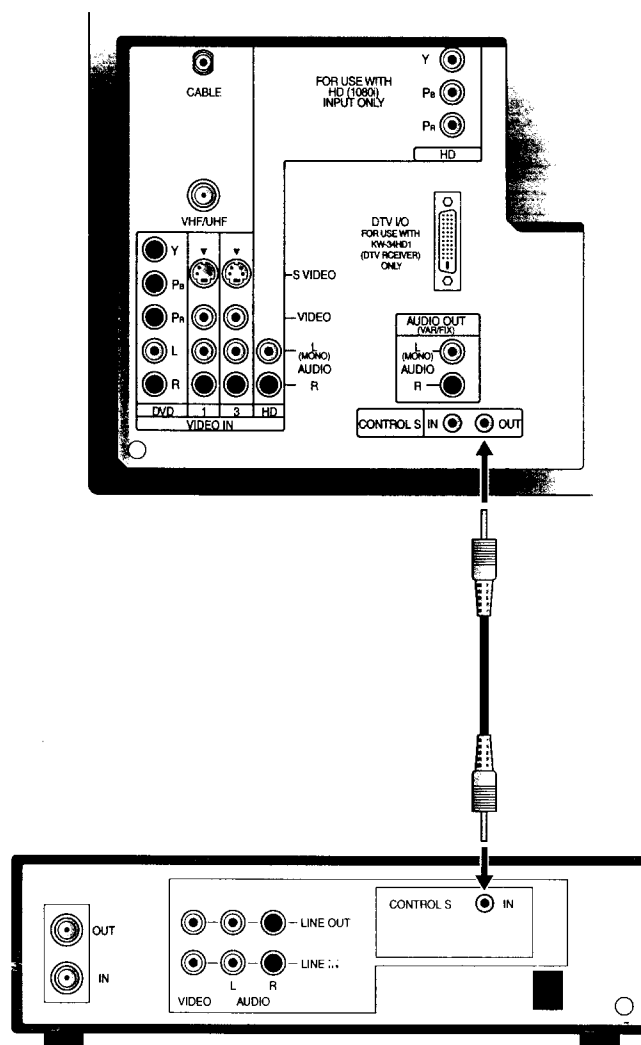
For easy connection of the camcorder, the TV has front A/V inputs (shown below). However, if you prefer, you can also connect the camcorder to the TV's rear A/V IN jacks.



## Using the CONTROL S Feature

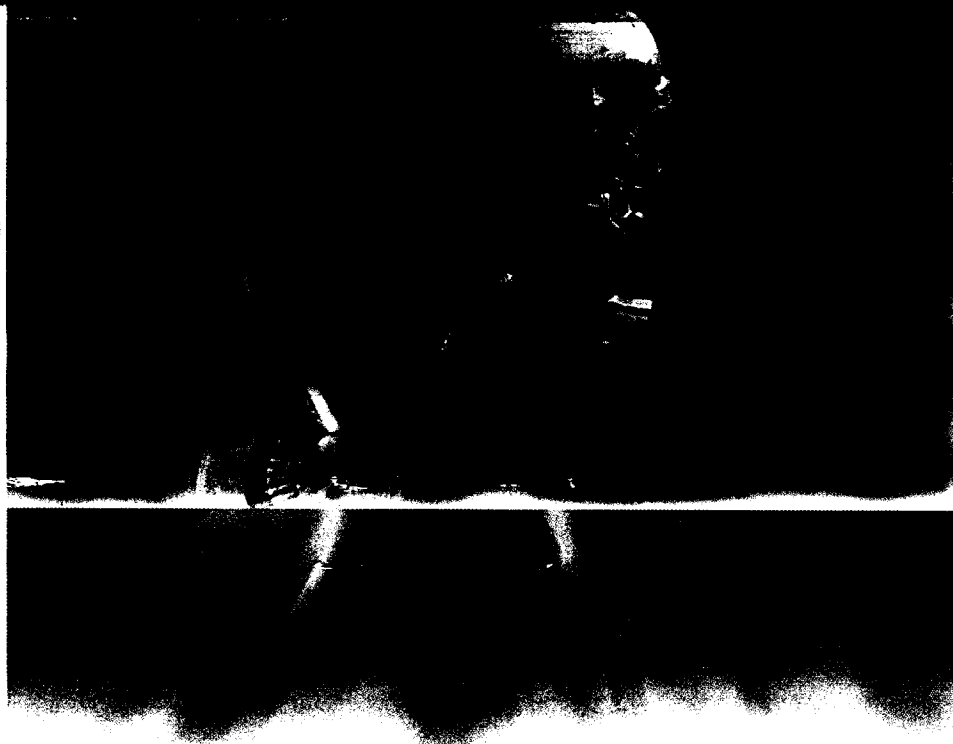
CONTROL S allows you to control your DTV system and other Sony equipment with one remote control.

To control your other Sony equipment with your DTV's remote control, use CONTROL S cable to connect the equipment's CONTROL S IN jack to the TV's CONTROL S OUT jack.





## *Using DTV Features*



## Overview

This chapter describes how to use new features of your digital TV, including:

- ❑ Using the Program Guide to Select Subchannels (page 37)
- ❑ Using Wide Screen Mode (page 38)
- ❑ Using Picture and Picture (Twin Picture) Mode (page 39)
- ❑ Using the Freeze Function (page 40)


For descriptions of all the functions of the TV, see “Using the Remote Control” on page 54.

## Using the Program Guide to Select Subchannels

The Program Guide lets you select subchannels from an on-screen list. Subchannels are additional channels of programming broadcast simultaneously. For example, channel 4 might include six subchannels (4.0, 4.1, 4.2, 4.3, 4.4, 4.5) that are showing programs at the same time.

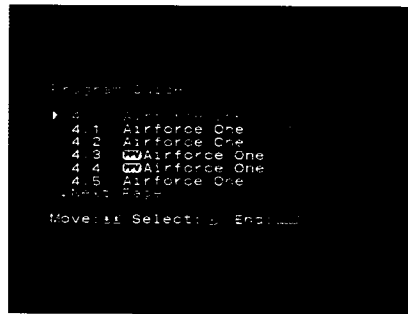
### To select subchannels using the Program Guide

- 1 Use the remote control to tune to a channel that includes subchannels.


 Channels that include subchannels include a decimal, followed by the number of the subchannel, such as "4.0," "4.1," etc. To check the channel number, press DISPLAY.

- 2 Press GUIDE.


The Program Guide appears, with the currently selected program showing in the background.



The Program Guide lists the programs that are currently showing on that channel (for example, channel 4), as well as the channel's subchannels (for example, 4.1, 4.2, etc).






 Program information in the Program Guide is provided by the broadcasters. As a result, the Program Guide may sometimes include only the channel number without a program title or description.

If the TV is tuned to a channel that does not include subchannels, the Program Guide will not appear.

- 3 To select a subchannel, move the joystick to highlight the channel number and press the  button.

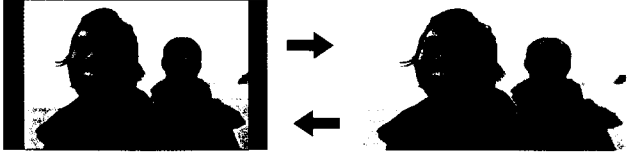
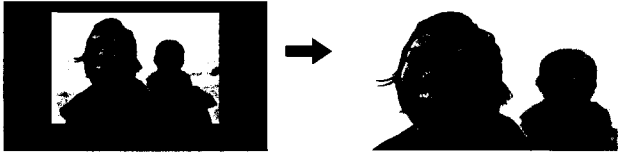
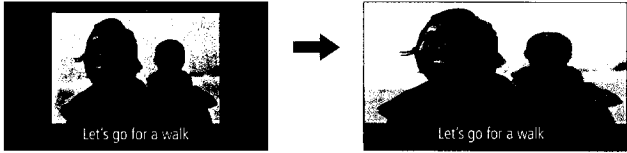
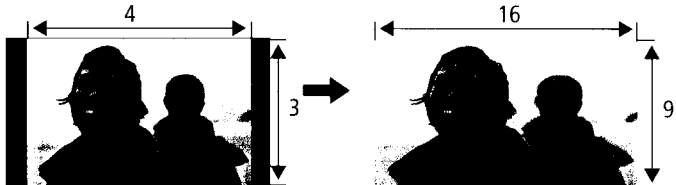
### To exit the Program Guide without selecting a channel


- 1 Press GUIDE.

 As an alternative to using the Guide you can select subchannels directly using the 0-9 buttons and the  button on the remote control. For example, to select channel 4.1, press  +  +  and then ENTER.

## Using Wide Screen Mode

The Wide Screen Mode feature lets you watch 4:3 normal broadcasts in Wide Screen Mode (16:9 aspect ratio).

<i>Press*</i>	<i>To Do This ...</i>
<b>NORMAL/FULL</b> Use this Feature when watching Letterbox Movies	Enlarge the 4:3 picture horizontally only, to fill the 16:9 screen.  <div style="display: flex; justify-content: space-around; width: 100%;"> <span>Normal</span> <span>Full</span> </div>
<b>ZOOM/CAPTION</b> Use this Feature when watching Letterbox Movies with subtitles	Enlarge the 4:3 picture horizontally and vertically to an equal aspect ratio that fills the 16:9 screen.  <div style="display: flex; justify-content: space-around; width: 100%;"> <span>Normal</span> <span>Zoom</span> </div>
	Enlarge the 4:3 picture while condensing the black subtitle band to fit the 16:9 screen.  <div style="display: flex; justify-content: space-around; width: 100%;"> <span>Normal</span> <span>Caption</span> </div>
<b>WIDE ZOOM</b>	Enlarge the 4:3 picture, while the upper and lower parts of the picture are condensed to fit the 16:9 screen.  <div style="display: flex; justify-content: space-around; width: 100%;"> <span>Normal</span> <span>Wide Zoom</span> </div>

 Wide screen mode buttons (NORMAL/FULL, ZOOM/CAPTION, and WIDE ZOOM) do not change the display of pictures broadcast in 16:9 aspect ratio.


## Using Picture and Picture (Twin Picture) Mode

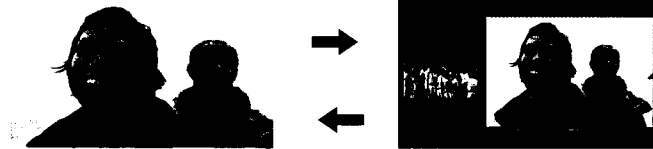
You can watch programs from two different input sources (digital and non-digital broadcast, VCR, DVD player, etc.) at the same time. You can also change the size of both the left and right pictures.

 You cannot display two digital channels at the same time.



### Displaying Twin Pictures

To display twin pictures

- ☐ Press .



To cancel twin pictures

- ☐ Press  again (or press the  button).

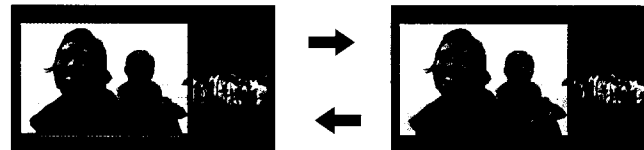
### Activating the Picture

Although two pictures appear on the screen at the same time, only one picture is active. For an active picture, you can:

- ☐ Change channels
- ☐ Adjust the volume
- ☐ Switch the input sources from VHF/UHF (digital) to cable or vice versa (using the ANT button)

To activate the right picture

- ☐ Move the joystick to the right.




To activate the left picture

- ☐ Move the joystick to the left.

 A blue highlight indicates which is the active picture.

## Changing the Picture Size

 You can also zoom using the LEFT ZOOM UP and RIGHT ZOOM UP buttons on the remote control.

The Zoom feature lets you change the size of the left and right pictures.


**To enlarge the left picture (reduce the right):**

- 1 Move the joystick left to activate the left picture (if not already activated).
- 2 Move the joystick up to enlarge the picture.



**To enlarge the right picture (reduce the left):**

- 1 Move the joystick right to activate the right picture (if not already activated).
- 2 Move the joystick up to enlarge the picture.

 When you adjust the twin screen sizes, the TV memorizes the change. The next time you use the P&P function, the memorized sizes appear.

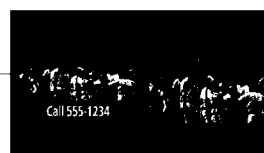
## Using the Freeze Function

The FREEZE button allows you to temporarily capture a program's picture. You can use this feature to write down information such as phone numbers, recipes, etc..

**To use the FREEZE function**

- 1 When the program information you want to capture is displayed, press the FREEZE button.
- 2 The TV switches to Picture and Picture mode and displays the "frozen" picture on the left, while the current program continues on the right.

Frozen picture

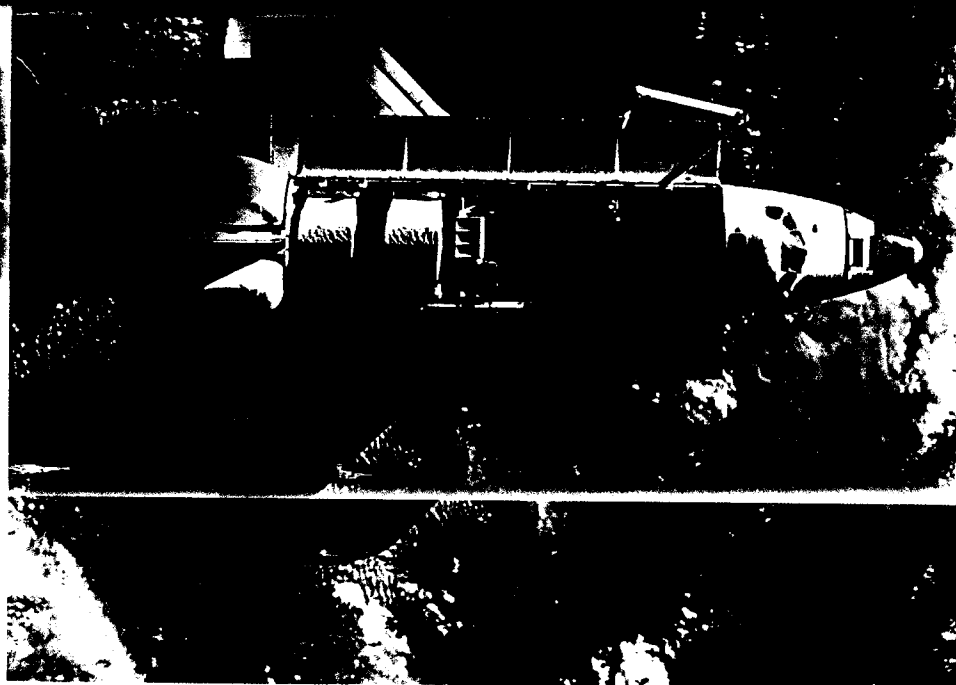


Current program in progress

- 3 To cancel and return to normal viewing, press the FREEZE button.

 Frozen pictures cannot be stored or saved.

## *Using the DTV Menu*



## Overview

You can use the on-screen menus to change the default (factory settings) for the following:

- ☐ Video (page 43)
- ☐ Audio (page 45)
- ☐ Wide screen mode (page 46)
- ☐ Channel setup (page 47)
- ☐ System setup (page 48)





## Using the Video Menu

To select the Video menu


- 1 Press MENU.
- 2 Select .




To restore the factory default settings for Video options

- ☐ Press RESET on the remote control while the Video menu is displayed.

### Selecting Video Options

 As a shortcut to using the menus, use the PICTURE MODE button on the remote control to select video modes.

The Video menu includes the following options.

Option	Description
Mode <i>Customized picture viewing</i>	Vivid: Select for enhanced picture contrast and sharpness. Standard: Select to display a standard picture. Movie: Select to display a finely detailed picture. Sports: Select to display a vivid, bright picture.  You can alter the Video menu settings (PICTURE, HUE, etc.) for each MODE.
Picture <i>Picture contrast</i>	Adjust to the right to increase picture contrast and deepen color. Adjust to the left to decrease picture contrast and soften the color.
Brightness <i>Picture adjustment</i>	Adjust to the right to brighten the picture. Adjust to the left to darken the picture.
Color <i>Color saturation</i>	Adjust to the right to increase color intensity. Adjust to the left to decrease color intensity.
Hue <i>Color tones</i>	Adjust to the right to increase the green tones. Adjust to the left to decrease the green tones.
Sharpness <i>Picture detail</i>	Adjust to the right to sharpen the picture. Adjust to the left to soften the picture.
DRC <i>Line doubler</i>	Digital Reality Creation: Sony's new DRC technology creates a higher resolution picture for your non-high definition broadcasts. High: Highest level of DRC picture optimization. Low: Lowest level of DRC picture optimization. Game: Optimizes DRC for video game players.

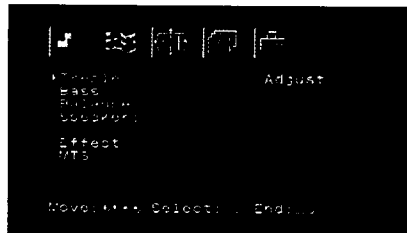
<i>Option</i>	<i>Description</i>
VM Vertical line enhancement	Velocity Modulation: Sharpens picture definition to give every object a sharp, clean edge. Select from: High Medium Low Off
TriniTone White intensity adjustment	Choose from three color temperatures: High: Select to give the white colors a blue tint. Medium: Select to give the white colors a neutral tint. NTSC STD: Select to give the white colors a red tint.



## Using the Audio Menu

To select the Audio Menu

- 1 Press MENU.
- 2 Select .





To restore the factory default settings for Audio options

- ☐ Press RESET on the remote control while the Audio Menu is displayed.

### Selecting Audio Options

The Audio Menu includes the following options:

Option	Description
Treble	Adjust left or right to decrease or increase higher-pitched sounds.
Bass	Adjust left or right to decrease or increase lower-pitched sounds.
Balance	Adjust left or right to emphasize left or right speaker volume.
Speaker <i>Custom selection of audio output source</i>	On: Select to listen to the sound from the TV speakers alone or the TV speakers and a separate stereo system. Off: Select to turn off the TV speakers and listen to the TV's sound only through external audio system speakers.
Audio Out <i>Easy control of volume adjustments</i>	This option can be set only when the Speaker option is set to Off. Variable: Sound output varies according to the TV settings. Useful when you want to use your remote control to control the output separate audio system. Fixed: Sound output is held at a fixed level. Use your audio receiver's remote control to adjust the volume.
Effect <i>Customize sound effect based on the program's audio type</i>	TruSurround: Produces a virtual surround effect for Dolby-surround encoded programs. Simulated: Adds a surround-like effect to mono programs. Off: Normal stereo or mono reception.
MTS <i>Enjoy stereo, bilingual and mono programs</i>	If you are tuned to an analog program, the MTS Menu presents these options: Stereo: Select for stereo reception when viewing a program broadcast in stereo. SAP: Select to listen to a bilingual broadcast. (Non-SAP programs will be muted when this feature is selected.) Mono: Select for mono reception. (Use to reduce noise during stereo broadcasts.) If you are tuned to a digital program that provides audio options, MTS presents the options Main and Sub.

 As a shortcut to using the menus, use the  button on the inside panel of the remote control to select the TruSurround effect for Dolby-surround encoded programs.



## Using the Wide Screen Menu

To select the Wide Screen Menu


- 1 Press MENU.
- 2 Select .




To restore the factory default settings for Wide Screen options


- ☐ Press RESET on the remote control while the Wide Screen Menu is displayed.

### Selecting Wide Screen Options

 As a shortcut to using the menus, use the buttons on the remote control to select these Wide Screen options for 4:3 pictures.

 As a shortcut to using the menus, use the V CENTER button on the remote control for vertical centering.

The Wide Screen menu includes the following options:

Option	Description
Wide Mode	<p>Normal: Select to return the 4:3 picture to normal mode.</p> <p>Full: Select to enlarge the 4:3 picture horizontally only, to fill the wide screen.</p> <p>Wide Zoom: Select to enlarge the 4:3 size picture, while the upper and lower parts of the picture are condensed to fit the wide screen.</p> <p>Zoom: Select to enlarge the 4:3 picture horizontally and vertically to an equal aspect ratio that fills the wide screen.</p> <p>Caption: Select to enlarge the 4:3 size picture, while the upper and lower parts of the picture are condensed to fit the wide screen.</p> <p>For details, see "Using Wide Screen Mode" on page 38.</p>
Vertical Center	Allows you to move the picture away from the top of the screen. (Available only in Zoom, Wide Zoom, and Caption Modes.)
Vertical Size	<p>Allows you to move the picture vertically within the screen. (Available only in Zoom, Wide Zoom, and Caption Modes.)</p> <p>Move the joystick up or down to choose a correction and press the  button.</p>



## Using the Channel Setup Menu

To select the Channel Setup Menu

- 1 Press MENU.
- 2 Select .




To restore the factory default settings for Channel Setup options

- ☐ Press RESET on the remote control while the Channel Setup Menu is displayed.

### Selecting Channel Setup Options


The Channel Setup menu includes the following options:

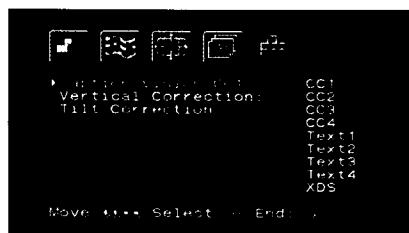
Option	Description
Auto Program	<p>Automatically programs the TV to receive channels for each input source, including cable, VHF/UHF, and digital.</p> <p> You must use Auto Program on initial setup (page 11) of your DTV system in order to receive any channels.</p> <p>Cable: Select to scan and preset cable channels automatically.</p> <p>VHF/UHF: Select to scan and preset VHF/UHF/Digital channels automatically.</p> <p>During the Auto Program process, AUTO PROGRAM appears and the TV starts scanning and presetting channels automatically. When all the receivable channels are stored, the lowest numbered channel is displayed.</p>
DTV Auto Add	Select to preset additional digital channels as they become available (after you use Auto Program).
Channel Show/Hide	Select to remove or add channels from the channel list for each input source.



## Using the System Setup Menu

To select the System Setup Menu


- 1 Press MENU.
- 2 Select .






To restore the factory default settings for System Setup options

- ☐ Press RESET on the remote control while the System Setup Menu is displayed.

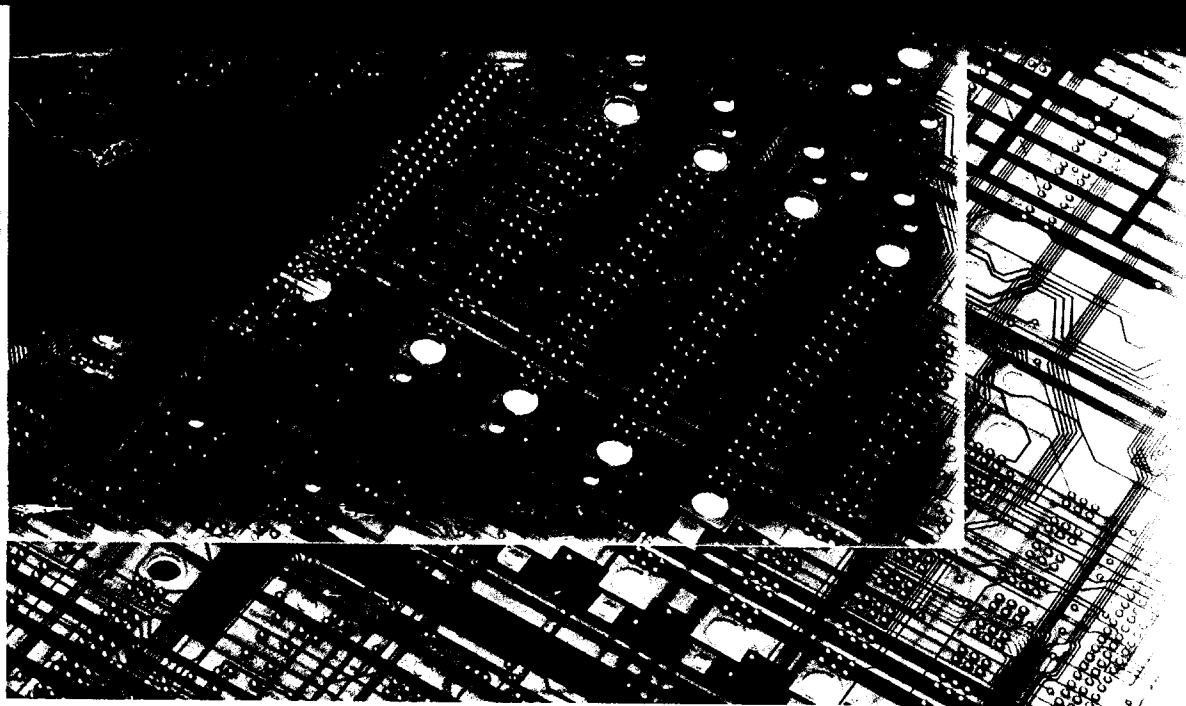
### Selecting System Setup Options

 Settings in the System Setup menu usually need to be adjusted only once — during the initial setup of the DTV system.

The System Setup menu includes the following options:

Option	Description
Caption Vision	<p>Allows you to select from three closed caption modes (for programs that are broadcast with closed caption).</p> <p>CC1, CC2, CC3, CC4: Displays a printed version of the dialog or sound effects of a program. (Should be set to CC1 for most programs.)</p> <p>TEXT1, TEXT2, TEXT3, TEXT4: Displays network/station information presented using either half or the whole screen.</p> <p>XDS (Extended Data Service): Displays a network name, program name, program length, and time of the show if the broadcaster offers this service.</p> <p> Use the DISPLAY button to display Caption Vision while viewing programs.</p>
Vertical Correction	<p>Allows you to make a vertical correction to the picture within the TV screen.</p> <p>Move the joystick right or left to choose a correction between +10 and -10 and press the  button.</p>
Tilt Correction	<p>Allows you to correct any tilt of the picture.</p> <p>Move the joystick up or down to choose a correction between +10 and -10 and press the  button.</p>

## *Other Information*



## Overview

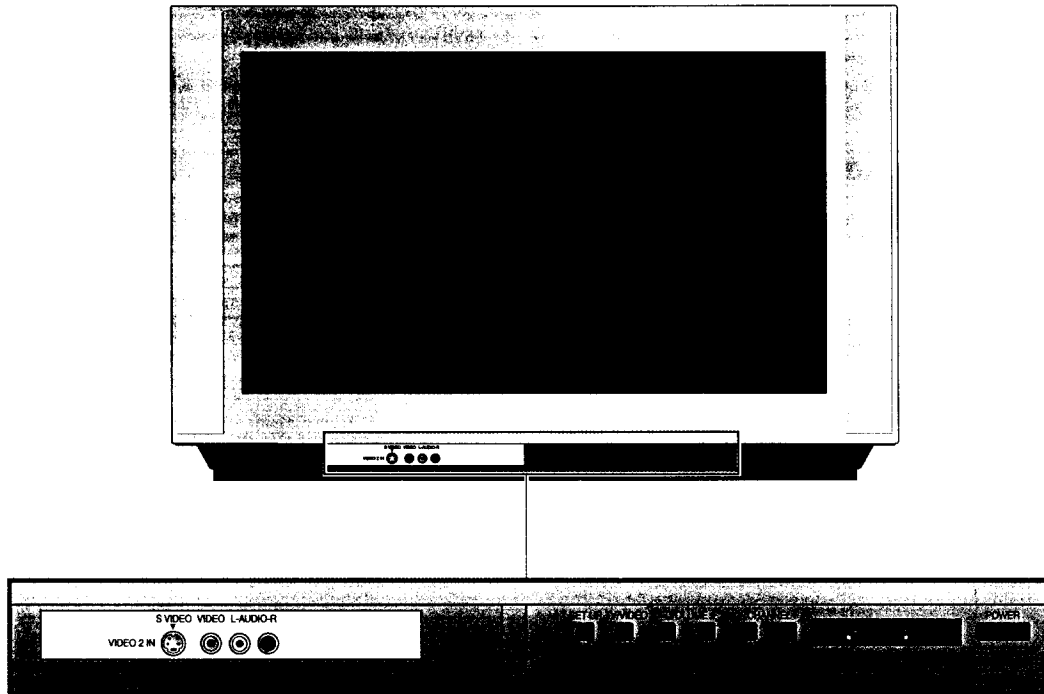
This chapter includes the following topics:

- ❑ TV Controls and Connectors (page 51)
- ❑ Receiver Controls and Connectors (page 53)
- ❑ Using the Remote Control (page 54)
- ❑ Troubleshooting (page 62)
- ❑ Specifications (page 64)



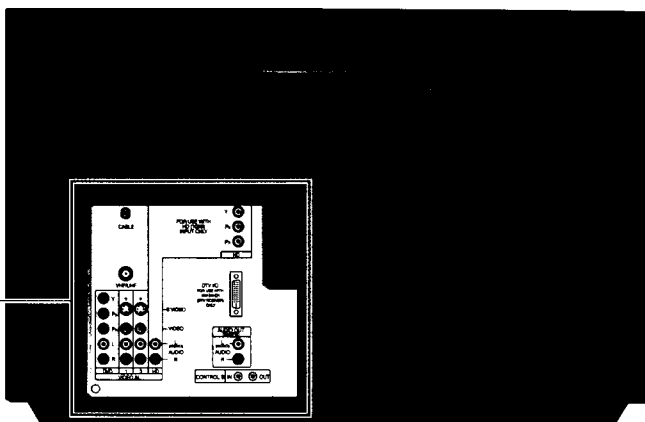
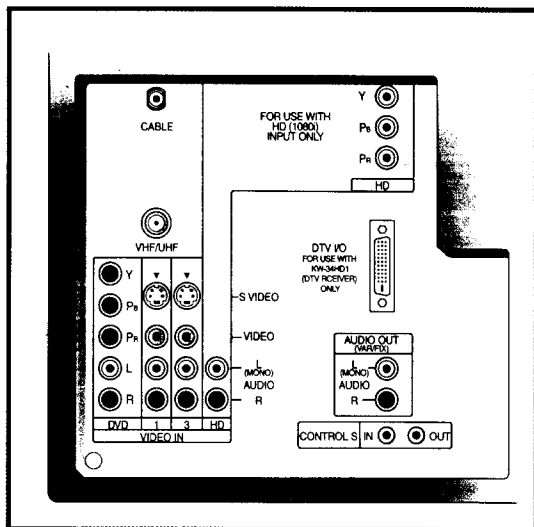
## TV Controls and Connectors

### TV Front Panel



Connection	Description
SETUP	Displays the Auto Setup screen, which allows you to run Auto Program. Auto Program sets up the TV to receive channels for each input source, including cable, VHF/UHF, and digital.
VIDEO 2 IN	Useful for connecting A/V components that will not be connected permanently, such as a camcorder. S VIDEO: Connects to the S VIDEO OUT jack of your S VIDEO equipped component. VIDEO and AUDIO (L/R): Connects to the audio and video OUT jacks on VCR or other video component.
TV/VIDEO	Press repeatedly to step through available video inputs: TV, VIDEO 1, VIDEO 2, VIDEO 3, DVD, HD.
VOLUME +/-	Press to adjust the volume (+ up or - down).
CHANNEL +/-	Press to scan through the channels (+ up or - down).
STEREO	Indicates the current program is broadcast in stereo.
STANDBY	Indicates that the TV is in standby mode.
POWER	Turns the DTV system on and off. If a video input indication (e.g., VIDEO 1, VIDEO 2) appears, press TV/VIDEO until a channel number appears.

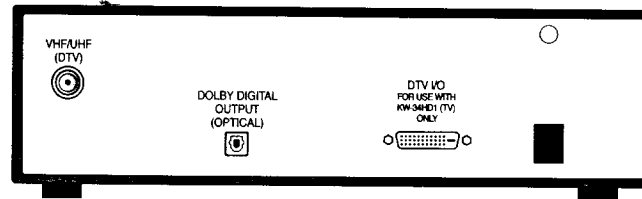
## TV Rear Panel



Connection	Description
CABLE	Connects to your cable.
VHF/UHF	Connects to your VHF/UHF antenna.
DVD	Connects to your DVD player's component video (Y, PB, PR) and audio (L, R) jacks.
S-VIDEO (2)	Connects to the S VIDEO OUT jack of your VCR or other Sony S VIDEO equipped video component.
AUDIO (L/R)/VIDEO (2)	Connects to the audio and video OUT jacks on your VCR or other video component. A third video input (VIDEO2) is located on the front panel of the TV.
HD/HD 1080i	Connects to digital cable boxes (as they become available in the future).
DTV I/O	Connects to the DTV receiver.
AUDIO OUT (VAR/FIX) L (MONO)/R	Connects to the right and left audio inputs of your audio or video component.
CONTROL-S IN/OUT	Allows the TV to receive (IN) and send (OUT) remote control signals to other Sony infrared-controlled audio or video components.

## Receiver Controls and Connectors


### Receiver Rear Panel



Connection	Description
FROM ANTENNA	Connects to your terrestrial antenna. <b>⚠ You cannot receive digital channels unless you connect a terrestrial antenna. This applies even if you normally receive your programming through cable or satellite.</b>
DOLBY DIGITAL OUTPUT (OPTICAL)	Allows you to connect your DTV receiver to an audio component that is Dolby Digital compatible.
DTV I/O	Connects to the TV's DTV I/O jack (model KW-34HD1 only)
AC IN	Connects the TV's AC plug to the receiver.


## Using the Remote Control

- 1 Select the equipment that you want to use with the corresponding FUNCTION button (or open the lid on the remote control and set the slide switch to the position that you set for the equipment).

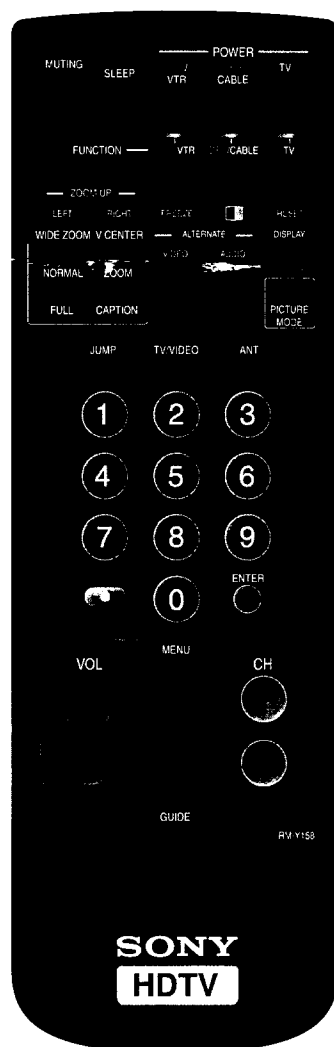
 The FUNCTION buttons flash to indicate which component the remote control is set to operate.


- 2 Aim the remote control at the equipment.
- 3 Press the POWER button of the equipment to turn it on and off.


To control other functions of the equipment, see the table that follows.

 Buttons described in the following table can be used to operate video equipment other than the DTV system. See page 57 for instructions on programming the remote control.

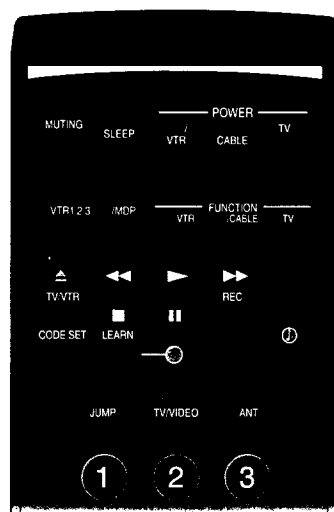
### Outside Panel



Button	Description
MUTING	Press to mute the sound. Press again or press VOL + to restore the sound.
SLEEP	Press repeatedly until the TV displays the time in minutes (30, 60, or 90) that you want the TV to remain on before shutting off automatically. Cancel by pressing until SLEEP OFF appears.
DVD/VTR (POWER)	Turns the DVD player, MDP player, or VTR (VCR) on and off.
DBS/CABLE (POWER)	Turns the DBS receiver or cable box on and off.
TV (POWER)	Turns the DTV system on and off. If a video input indication (e.g., VIDEO 1, VIDEO 2) appears, press TV/VIDEO until a channel number appears.
DVD/VTR (FUNCTION)	Activates the remote control for use with a DVD player, MDP, or VTR (VCR).
DBS/CABLE (FUNCTION)	Activates the remote control for use with a DBS receiver or cable box.
TV (FUNCTION)	Activates the remote control for use with the DTV receiver.
LEFT (ZOOM UP)	Enlarges the left picture when the DTV is in P&P mode. For details, see "Changing the Picture Size" on page 40.
RIGHT (ZOOM UP)	Enlarges the right picture when the DTV is in P&P mode. For details, see "Changing the Picture Size" on page 40.
FREEZE	Switches to Picture and Picture mode, displaying the "frozen" picture frame (when FREEZE was pressed) on the left and the current program on the right. Useful for capturing information, such as phone numbers, recipes, etc. Press again to cancel. For details, see "Using the Freeze Function" on page 40.
	Switches to Picture and Picture mode, displaying left and right pictures. Press again to cancel. For details, see "Using Picture and Picture (Twin Picture) Mode" on page 39.
RESET	Resets the DTV to the factory default settings for the Video and Audio menus. For details, see pages 43 to 45.
WIDE ZOOM	Enlarges 4:3 pictures. The upper and lower parts of the picture are stretched to fill the 16:9 screen. Also available in the Wide Screen mode menu. For details, see "Using Wide Screen Mode" on page 38.

<b>Button</b>	<b>Description</b>
V CENTER	Allows you to move the picture away from the top of the screen in Wide Zoom, Zoom, and Caption modes. (Not available for Full or Normal mode pictures). Also available in the Wide Screen mode menu. For details, see "Using Wide Screen Mode" on page 38.
NORMAL/FULL	Enlarges 4:3 pictures. The picture is stretched horizontally only to fill the 16:9 screen. Also available in the Wide Screen menu. For details, see "Using Wide Screen Mode" on page 38.
ZOOM/CAPTION	Enlarges the original film dimensions to fill the 16:9 screen. Also available in the Wide Screen menu. For details, see "Using Wide Screen Mode" on page 38.
VIDEO (ALTERNATE) (for digital broadcasts only)	Cycles through the available video displays for the current program. (For example, a sporting event that broadcasts multiple camera angles.)
AUDIO (ALTERNATE) (for digital broadcasts only)	Cycles through the available audio tracks for the current program. (For example, a sporting event that broadcasts multiple commentators.)
DISPLAY	Press repeatedly to step through available displays. Caption Vision and XDS (Extended Data Services) are displayed if the broadcaster offers this service (see page 48). Cancel by pressing until DISPLAY OFF appears.
PICTURE MODE	Press repeatedly to step through the available video modes: Vivid, Standard, Movie, Sports. Also available in the Video menu. For details, see "Selecting Video Options" on page 43.
JUMP	Press to jump back and forth between two channels. The DTV alternates between the current channel and the last channel that was selected using the 0-9 buttons.
TV/VIDEO	Press repeatedly to step through available video inputs: TV, VIDEO 1, VIDEO 2, VIDEO 3, DVD, HD.
ANT	Press repeatedly to select VHF/UHF (digital), and cable inputs.
0 – 9 and ENTER	Use for direct channel selection. Press 0 – 9 to select a channel (for example, to select channel 10, press ① + ⑩), the channel changes after 2 seconds, or you can press ENTER for immediate selection.
	Use with 0 – 9 and ENTER buttons to select subchannels (for example, 2.1). For details on selecting subchannels, see page 37.
MENU	Press to display the DTV menu. For details, see "Using the DTV Menus" on page 41.
VOL +/-	Press to adjust the volume (+ up or - down).
CH +/-	Press to scan through the channels (+ up or -down).
GUIDE	Press to display the Program Guide. For details, see "Using the Program Guide to Select Subchannels" on page 37.

### Inside Panel




Button	Description
VTR1/2/3/DVD/MDP	Switches to VCR or laserdisc mode, depending on how you set up the remote control for these switch positions (see page 57).
DVD/VTR (FUNCTION)	Activates the remote control for use with a DVD player, MDP player, or VTR (VCR).
DBS/CABLE (FUNCTION)	Activates the remote control for use with a DBS receiver or cable box.
TV (FUNCTION)	Activates the remote control for use with the DTV system.
	Eject (used only with Sony brand equipment)
	Rewind
	Play
	Fast-forward
DVD MENU	Displays the DVD menu.
TV/VTR	Changes the VHF/UHF output of the VCR.
	Stop
	Pause
	Record (two buttons)
TITLE	Displays the DVD's Title menu.
CODE SET	Used for programming the remote control to operate non-Sony video equipment. For details, see "Programming the Remote Control" on page 57.
LEARN	Used for setting up the remote control to operate equipment not listed on page 58. See "Using the Learn Function" on page 61.
	Provides quick access to for changing the audio effect. For details and other available effects, see "Selecting Audio Options" on page 45.

## Programming the Remote Control


The remote control is preset to operate Sony brand video equipment.

<b>Sony Equipment</b>	<b>Switch Position on Remote Control</b>	<b>Programmable Code Number</b>
Beta, ED Beta VCRs	VTR1	303
8 mm VCR	VTR2	302
VHS VCR	VTR3	301
DVD Player	DVD/MDP	751

If you have video equipment other than Sony brand that you want to control with the DTV's remote control, use the following procedures to program the remote control.

 The equipment must have infrared (IR) remote capability in order to be used with the remote control.

- 1 Turn to "Programmable Codes" on page 58, and find the three-digit code number for your equipment. If more than one code number is listed, use the number listed first to complete the following procedures.

 You must perform step 3 within 10 seconds of step 2, or you must start again from step 2.

- 2 Press CODE SET.
- 3 Enter the three-digit code number.
- 4 Press ENTER.

### To Check if the Code Number Works

Use the following procedure to make sure the code you've entered works:

- 1 Aim the DTV's remote control at the equipment and press the POWER button that corresponds to that equipment.
- 2 If the equipment responds, you're done. If the code doesn't work for your equipment:
  - ☐ Try programming the remote control using the other codes listed for your equipment.
  - ☐ If you cannot get your equipment to respond to the DTV's remote control — even after trying all the code numbers for your equipment — your equipment may not be compatible with the DTV's remote control. If this happens, you must use your equipment's own remote control to operate it. Try using the Learn feature to program specific buttons. See "Using the Learn Function" on page 61.

### Tips

- ☐ If more than one code number is listed, try entering them one by one until you come to the correct code for your equipment.
- ☐ If you enter a new code number, the code number you previously entered at that setting is erased.
- ☐ In some rare cases, you may not be able to operate your equipment with the supplied remote control. In this case, use the equipment's own remote control unit.
- ☐ Whenever you remove the batteries to replace them, for example if too much time is taken, the code numbers may revert to the factory setting and must be reset.

**Programmable Codes****VCR Codes**

Sony VHS	301
Sony 8mm	302
Sony Beta	303
Bell & Howell	343
Daewoo	341
Emerson	316, 317, 318, 319, 320
Fisher	330, 333, 334, 335
GE	304, 329
Go Video	339, 340
Gold Star	332
Hitachi	304, 305
JVC	314
Magnavox	308, 309, 310

Mitsubishi	323, 324, 325, 326
NEC	336, 337
Panasonic	306, 307
Philips	310
RCA	305
Samsung	313, 321, 322
Scott	312
Sharp	327, 328
Shintom	315
Symphony	338
Teknica	338, 342
Toshiba	311
Zenith	331

**Cable Box Codes**

Gemini	233
GI	218
Hamlin	223, 224, 225, 226
Jerrold	201, 202, 203, 204, 205, 206, 207, 208, 222
Macom	230, 231, 232
Magnavox	234
Oak	227, 228, 229

Panasonic	219, 220, 221
Philips	236, 237, 238, 239, 240, 241
Samsung	235
Scientific Atlanta	209, 210, 211
Zenith	212, 213
Pioneer	214, 215
Tocom	216, 217

**MDP Codes**

Sony	701
Kenwood	707
Mitsubishi	702
Panasonic	704

Sanyo	706
Sharp	705
Yamaha	703

**DVD Codes**

Sony	751
Panasonic	753
Pioneer	752

RCA	755
Toshiba	754

**DBS (Satellite) Codes**

Sony	801
RCA	802



### Operating a VCR

<i>To Do This ...</i>	<i>Press</i>
Turn on/off	DVD/VTR (POWER)
Change channels	CH +/-
Record	REC (2 buttons)
Play	▶
Stop	■
Fast forward	▶▶
Rewind the tape	◀◀
Pause	(press again to resume normal playback)
Search the picture forward or backward	▶▶ or ◀◀ during playback (release to resume normal playback)
Change input mode	TV/VTR

### Operating an MDP

<i>To Do This ...</i>	<i>Press</i>
Turn on/off	DVD/VTR (POWER)
Play	▶
Stop	■
Pause	(press again to resume normal playback)
Search the picture forward or backward	▶▶ or ◀◀ during playback (release to resume normal playback)
Search a chapter forward or backward	CH +/-

### Operating a DVD Player

<i>To Do This ...</i>	<i>Press</i>
Turn on/off	DVD/VTR (POWER)
Play	▶
Stop	■
Pause	(press again to resume normal playback)
Step through different tracks of an audio disc	▶▶ to step forward or ◀◀ to step backward
Step through different chapters of a video disc	CH+ to step forward or CH- to step backward
Display the Title menu	TITLE
Display the DVD menu	DVD MENU
Select tracks directly	0-9 buttons
Display the menu (Set up)	MENU

### Operating a DBS (Satellite) Receiver

<i>To Do This ...</i>	<i>Press</i>
Turn on/off	DBS/CABLE (POWER)
Select a channel	0-9 buttons, ENTER
Change channels	CH +/-
Back to previous channel	JUMP
Change input mode	TV/DBS
Display channel number	DISPLAY
Display DBS guide	GUIDE
Display DBS menu	MENU
Move highlight (cursor)	Joystick
Select item	↵ button (press joystick)

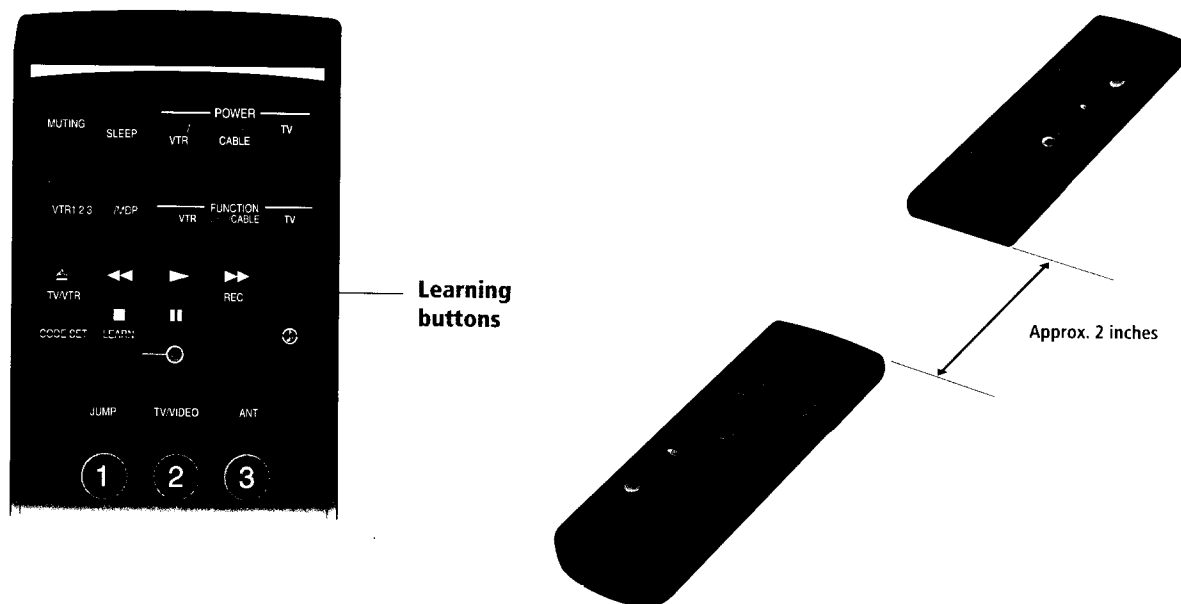
### Operating a Cable Box

<i>To Do This ...</i>	<i>Press</i>
Turn on/off	DBS/CABLE (POWER)
Select a channel	0-9 buttons, ENTER
Change channels	CH +/-
Back to previous channel	JUMP

## Using the Learn Function

You can program the remote control to learn the functions of another manufacturer's remote control. Use this function to operate equipment that is not listed in "Programmable Codes" on page 58.

- 1 Set the slide switch in the inside panel to VTR3 or DVD/MDP.
- 2 Place the DTV's remote control and the other manufacturer's remote control directly facing each other, about two inches apart.



- 3 Press LEARN. The Learn indicator lights.
- 4 Press one of the learning buttons (see illustration) on the DTV's remote control that you want to learn a function. The Learn indicator flashes off, then on, indicating that the DTV's remote control is now ready to learn.
- 5 Hold down the corresponding button on the other component's remote control. When the Learn indicator flashes off, then on, release the button on the other component's remote control.

If the indicator doesn't flash, repeat steps 4 and 5.

- 6 To learn other functions, repeat steps 4 and 5.

### About the Learn Function

- ☐ The Learn function does not work in the VTR1 and VTR2 slide switch positions.
- ☐ During the learning procedure, do not move the remote controls.
- ☐ If you press a button on this remote control that cannot be used for learning, the Learn indicator flashes four times.
- ☐ To clear all learned signals from memory, set the slide switch inside the lid to DVD/MDP, press LEARN, press the TV POWER button while holding down the VOL- button, and then press LEARN again.
- ☐ When you remove the batteries — to replace them, for example — any codes you've set may be erased.

## Troubleshooting

---

### *No picture (screen not lit), no sound*

- ☐ If your TV does not turn on, and a red light keeps flashing, your TV may need service. Call your local Sony Service Center.
- ☐ Make sure the power cord is plugged in.
- ☐ Check to see if the TV/VIDEO setting is correct: when watching TV, set to TV, and when watching video tapes, set to VIDEO 1, 2, or 3.
- ☐ Try another channel. It could be station trouble.
- ☐ Push the power button on the front of the monitor.

---

### *Remote control does not operate*

- ☐ Batteries could be weak. Replace the batteries.
- ☐ Press TV (FUNCTION) when operating your TV.
- ☐ Make sure the DTV's power cord is connected securely to the wall outlet.
- ☐ Locate the DTV at least 3-4 feet away from fluorescent lights.
- ☐ Check the orientation of the batteries.

---

### *Dark, poor or no picture (screen lit), good sound*

- ☐ Adjust the Picture setting in the Video menu (see page 43).
- ☐ Adjust the Brightness setting in the Video menu (see page 43).
- ☐ Check antenna/cable connections.

---

### *Good picture, no sound*

- ☐ Press MUTE so that "MUTING" disappears from the screen (see page 54).
- ☐ Check the MTS setting in the Audio menu (see page 45).
- ☐ Make sure Speaker is set to On in the Audio menu (see page 45).

---

### *Cannot receive upper channels (UHF) when using an antenna*

- ☐ Use Auto Program in the Channel Setup menu to add receivable channels that are not presently in DTV memory (see page 47).

---

### *No color*

- ☐ Adjust the Color settings in the Video menu (see page 43).

---

### *Only snow and noise appear on the screen*

- ☐ Check the antenna/cable connections.
- ☐ Make sure the channel is broadcasting programs.
- ☐ Press ANT to change the input mode (see page 55).

---

### *Dotted lines or stripes*

- ☐ Adjust the antenna.
- ☐ Move the DTV away from noise sources such as cars, neon signs, or hair-dryers.

---

***TV is fixed to one channel***

- ☐ Use Auto Program in the Channel Setup menu to add receivable channels that are not presently in DTV memory (see page 47).

---

***Double images or ghosts***

- ☐ Use a highly directional outdoor antenna or a cable (when the problem is caused by reflections from nearby mountains or tall buildings).

---

***Cannot operate menu***

- ☐ If the item you want to choose appears in gray, you cannot select it.

---

***Cannot receive any channels when using cable TV***

- ☐ Use DTV Auto Add in the Channel Setup menu to add receivable channels that are not presently in DTV memory (see page 47).

---

***Cannot gain enough volume when using a cable box***

- ☐ Increase the volume at the cable box. Then press TV (FUNCTION) and adjust the DTV's volume.

---

***Cannot receive digital channels***

- ☐ Make sure that a terrestrial antenna is connected to the DTV receiver (page 19). You cannot receive digital channels unless you connect a terrestrial antenna. This is true even if you normally receive your programming through cable or satellite.
- ☐ Use Auto Program in the Channel Setup menu to add receivable DTV channels that are not presently in DTV memory (see page 47).
- ☐ Check your local listings to find out if you can receive digital broadcasts in your area.

---

***Unable to select a digital channel***

- ☐ Use DTV Auto Add in the Channel Setup menu to add receivable DTV channels that are not presently in DTV memory (see page 47).

---

***No picture on a digital channel***

- ☐ Switch to a different digital channel.
- ☐ The program's alternate video source (such as an alternate camera angle) may be malfunctioning. Press ALTERNATE VIDEO on the remote control to choose a different video source.

---

***No sound on a digital channel***

- ☐ Check the Cable setting in the System Setup menu (see page 47).
- ☐ The program's alternate audio source (such as an alternate commentator) may be malfunctioning. Press ALTERNATE VIDEO on the remote control to choose a different audio source.

## Specifications

Power requirements	120V, 60Hz	
Number of inputs/outputs		
Video (In)	3	1 Vp-p, 75 ohms unbalanced, sync negative
S VIDEO (In)	3	Y: 1 Vp-p, 75 ohms unbalanced, sync negative C: 0.286 Vp-p (Burst signal), 75 ohms
Audio (In)	5	500 mVrms (100% modulation), Impedance: 47 kilohms
Audio out	1	More than 408 mVrms at the maximum volume setting (variable) More than 408 mVrms (fix) Impedance (output): 2 kilohms
CONTROLS (IN/OUT)	1	
Y, PB, PR for DVD	1	Y: 1.0 Vp-p, 75 ohms, sync negative PB: 0.7 Vp-p, 75 ohms PR: 0.7 Vp-p, 75 ohms fH: 15.734 kHz, fV: 59.94 Hz
Y, PB, PR for HD <sup>6)</sup>	1	Y: 1.0 Vp-p, 75 ohm, Tri level sync PB: 0.7 Vp-p, 75 ohm PR: 0.7 Vp-p, 75 ohm fH: 33.75 kHz, fV: 60 Hz
Speaker output (W)	15W x 2	
Power consumption (W) (TV(Monitor) and receiver)		
In use (max.)	330W	
In standby	4.5W	
TV (monitor)		
Dimensions (mm)	988 (W) x 613 (H) x 592 (D)	
Dimensions (in.)	37 3/4 (W) x 24 1/8 (H) x 23 3/8 (D)	
Mass (kg)	89	
Mass (lbs)	196	
Television system	American TV Standard, NTSC, ATSC	
DTV receiver		
Dimensions (mm)	430 (W) x 103 (H) x 300.5 (D)	
Dimensions (in.)	17 (W) x 4 3/4 (H) x 11 7/8 (D)	
Mass (kg)	5	
Mass (lbs)	11	
Channel coverage	DTV: 1 – 99 VHF: 2 – 13 UHF: 14 – 69 CATV: 1 – 125	
Picture tube	FD Trinitron® tube	
Antenna	75 ohm external terminal for VHF/UHF	
Visible screen size	34-inch picture measured diagonally (KW-34HD1)	
Actual screen size	36-inch picture measured diagonally (KW-34HD1)	
Supplied accessories	Remote control (model RM-Y158), batteries (2) size AA (R6), Coaxial cable, I/O cable	
Optional accessories	Connecting cables RK-74A, RK-G69HG, VMC-10HG, VMC-720M, VMC-810/820S, YC-15V/30V TV stand 34HD1 (see specifications below) U/V mixer EAC-66	
TV stand (34HD1) specifications		
Dimensions (mm)	953 (W) x 528 (H) x 705 (D)	Width is 1167mm with door open
Dimensions (in.)	37 1/2 (W) x 20 3/4 (H) x 27 3/4 (D)	Width is 46" with door open
Mass (kg)	45	
Mass (lbs)	99	
Supplied accessory	Rubber Bumpers (2)	

---

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